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Tanganyika Territory.

ANNUAL MEDICAL REPORT

FOR THE

YEAR ENDING DECEMBER 31st, 1923.

Tanganyika Territory.

ANNUAL MEDICAL REPORT

FOR THE

YEAR ENDING DECEMBER 31st, 1923.

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CONTENTS.

PAGE

I. Administrative :—

Staff 4
Financial 11
Library 12

II. Public Health :—

(*a*) General Remarks—

(i) General Diseases 12
(ii) Communicable Diseases 16
Report on Venereal Diseases in Bukoba District by Dr. G. A. Williams, M.O., Bukoba 22
(*b*) European Officials—General Remarks 23
Causes of Death and Invaliding 24
Table showing the Sick, Invaliding and Death Rates by Districts . 25
Table showing the Sick, Invaliding and Death Rates for the three principal Towns and the whole Territory for 1921, 1922, 1923 . 27
Tables showing the Morbidity Rates for Malaria and Blackwater Fever in the three principal Towns and the whole Territory for 1921, 1922,1923—European and Asiatic Officials 28
(*c*) Asiatic Officials—General Remarks 31
Causes of Death and Invaliding 31
Table showing the Sick, Invaliding and Death Rates by Districts . 32
Table showing the Sick, Invaliding and Death Rates for the three principal Towns and the whole Territory for 1921, 1922, 1923 . 34
Native Officials—Report on the Health of the King's African Rifles . 35
Report on the Health of the Native Police and Warders . . . 38
(*d*) General European Population—General Remarks 39
Causes of Death 39
(*e*) General Native Population—General Remarks 40
(*f*) Legal 40
(*g*) Registration of Medical and Dental Practitioners 40
Registration of Druggists 41
(*h*) Recommendations 41
III. Sanitation—Report of the Senior Sanitation Officer, Dr. A. H. Owen . . . 43
(*a*) (i) Administrative 43
(ii) Preventive and General Measures—Rural Sanitation 44
Urban Sanitation 46
Extracts from the Report of the Medical Officer of Health, Dar-es-Salaam, Dr. R. R. Scott, M.C. 47
Extracts from the Report of the Medical Officer of Health, Tanga, Dr. A. I. Meek 70
Extracts from the Report of the Acting Senior Medical Officer, Tabora, Dr. J. G. McNaughton 80
Summary of Routine Sanitary Work done in Morogoro, Kilwa, Lindi, Iringa, Dodoma 84
Vaccination 86

III. Sanitation—*continued.*

PAGE

Malaria 86
Report on Malaria at Tanga by Dr. T. H. Suffern, Senior Medical Officer 89
Human Trypanosomiasis in Mwanza District 89
Influenza 92
Plague 93
Small-pox 95
Dysentery 95
Table of Infectious Diseases 96
Ankylostomiasis 98
Leprosy 98

(*b*) Legal 99
(*c*) The Central Town Planning and Building Committee 100
(*d*) Vital Statistics 100
(*e*) Recommendations 101

IV. Hospitals and Dispensaries—General Remarks 101
New Buildings and Improvements 103
Table: Summary of Cases treated at Government Hospitals and Dispensaries, showing Denomination of Patients 106
Table of Diseases treated at Government Hospitals and Dispensaries, by Stations 107
Table of Diseases treated, In and Out-Patients, and Deaths of In-Patients . 135
Table of Surgical Operations performed 144
Annual Report of the Superintendent, Lutindi Lunatic Asylum . . . 147
Annual Report of the Government Dental Surgeon 149
Annual Report by Sub-Assistant Surgeon Kelkar; Anglo-Belgian Boundary Commission 150

V. Report on the Health of Prisoners 158

VI. Scientific :—
Third Report on Treatment with Bismuth Sodium Potassium Tartrate . . 171
Report, Extract from, by Miss Iles, M.D., on ditto 174
Report by Dr. McNaughton on Treatment of Epilepsy by ditto . . 176
Report by Dr. McNaughton on Treatment of "Mti Mgongwa" by ditto . 176
Report by S. A. S. Moole on Treatment of Yaws by ditto . . . 177
A Case of Congenital Defect of the Urethra, by Dr. C. F. Shelton . . 177
Cases of Interest Reported by Dr. G. A. Williams :—
(*a*) General Paralysis in Natives 178
(*b*) Ascaris in an Inguinal Abscess 179
(*c*) Sarcoma of Forearm 179
(*d*) Purpura 180
Case of Multiple Osteomata, by Dr. J. H. Thomson 180
Case of Facial Wound, by Dr. J. M. Semple 181
Case of Carcinoma of the Pylorus, by Dr. C. F. Shelton 181
Case of Hepatic Abscess in a Native of Uganda, by Dr. C. F. Shelton . . 182
Splenic Enlargement in Adult Natives, by Dr. J. G. McNaughton . . . 183

VII. Report of the Director of the Laboratory, Dar-es-Salaam 184

VIII. Index 203

TANGANYIKA TERRITORY.

Annual Medical Report, 1923.

I. *ADMINISTRATIVE.*

(*a*)—STAFF.

1. The establishment, as authorised by the Estimates 1922-1923, was as follows:—

EUROPEAN.

Principal Medical Officer.
Deputy Principal Medical Officer.
Senior Sanitation Officer.
Director of Laboratory.
3 Senior Medical Officers.
1 Dental Surgeon.
21 Medical Officers.
2 Senior Nursing Sisters.
14 Nursing Sisters.
1 Clerk.
1 Storekeeper
1 Assistant Storekeeper
1 Laboratory Assistant.
1 Superintendent, Lunatic Asylum.
1 Matron, Lunatic Asylum.
7 Sanitary Superintendents.

ASIATIC.

23 Sub-Assistant Surgeons.
26 Compounders.
2 2nd Grade Clerks.
5 3rd and 4th Grade Clerks.

NATIVE.

A varying number of Clerks, Hospital Attendants, Dispensers, Sanitary Inspectors, Vaccinators, Messengers and Labourers. Three Asiatic Sanitary Inspectors are employed under the heading of Native Sanitary Inspectors.

2. For the year 1923-1924 the authorised establishment was increased by:—

European.

3 Medical Officers.
3 Nursing Sisters.
1 Clerk.

Asiatic.

7 Sub-Assistant Surgeons.
1 3rd or 4th Grade Clerk.

and was reduced by:—

6 Asiatic Compounders.

3. Shortages on the Establishment:—

At the beginning of 1923 there were the following shortages:—

European.

1 Senior Nursing Sister.
1 Nursing Sister.
2 Sanitary Superintendents.

Asiatic.

1 Sub-Assistant Surgeon.
1 Compounder.

At the end of 1923 the shortages were as follows:—

European.

4 Medical Officers.
1 Senior Nursing Sister.
1 Clerk.

Asiatic.

1 Sub-Assistant Surgeon.

N.B.—Shortages due to absence on leave are not included above.

The average number of Senior Medical Officers and Medical Officers available for executive duties in Tanganyika Territory during 1923 was 15.26 or, deducting 2 employed as Medical Officers of Health, 13.26, the rest being on home leave or acting in the Administrative or Laboratory Divisions.

The Deputy Principal Medical Officer was on leave throughout the year. Dr. Owen Prichard filled his post until he proceeded on leave on March 5th. Dr. G. G. Butler, Director of the Laboratory, acted as Deputy Principal Medical Officer from July 7th to the end of the year, Dr. W. E. Haworth taking over his duties at the Laboratory.

The post of Senior Medical Officer, rendered vacant on 16th September, 1923, by the retirement on pension of Dr. Owen Prichard, was filled by the promotion of Dr. P. F. Nunan, Medical Officer, Kenya Colony. Dr. Nunan had not arrived in the Territory to take up his duties at the end of the year.

The following officers acted as Senior Medical Officer :—

At Tabora : Dr. J. G. McNaughton—from February 14th to the end of the year.

At Dar-es-Salaam : Dr. J. H. Parry—from the beginning of the year until February 14th.

The following officers acted as Medical Officers of Health :—

At Dar-es-Salaam : Dr. R. Nixon—from the beginning of the year until May 20th; Dr. R. R. Scott, M.C.—from May 21st to the end of the year.

At Tanga : Dr. A. I. Meek—from the beginning of the year until June 12th ; Dr. R. Nixon—from June 13th to November 27th ; Dr. A. I. Meek—from November 28th to the end of the year.

The following Nursing Sisters acted as Senior Nursing Sister :—

At Tanga : Miss J. Frazer—from 25th April to the end of year.

At Dar-es-Salaam : Miss Bishop—throughout the year.

Mr. H. W. Hassard acted as Medical Storekeeper from 21st February to 5th November.

Appointments :—

The following appointments were made during the year :—

Dr. P. F. Nunan (M.O., Kenya Colony), to be a Senior Medical Officer, 29th December, 1923.
Dr. J. H. Thomson (M.O., Kenya Colony), to be a Medical Officer, 4th October, 1923.
Dr. O. Fitzpatrick, to be a Medical Officer, 29th December, 1923.
Miss K. Thompson, to be a Nursing Sister, 9th March, 1923.
Mrs. Fichat, ditto (temporary), 7th August, 1923.
Mrs. Turnley, ditto, 15th August, 1923.
Miss A. Muncaster, ditto, 26th September, 1923.
Mr. W. H. Jones, to be Sanitary Superintendent, 9th March, 1923.
Mr. W. M. Mackay, ditto, 7th September, 1923.
Mr. J. W. Comfort, to be Sub-Assistant Surgeon, 11th July, 1923.
Mr. B. K. Christian, ditto, 8th August, 1923.
Mr. M. P. Dave, ditto, 22nd August, 1923.
Mr. A. K. Pathreekar, ditto, 16th May, 1923.
Mr. W. J. Paul, ditto, 5th September, 1923.
Mr. Chunilal Khanna, ditto, 14th September, 1923.
Mr. T. M. Joseph, ditto, 25th September, 1923.
Mr. J. F. Freeman, ditto, 17th October, 1923.
Mr. W. A. Irvine, ditto, 17th October, 1923.

Mr. R. G. Pradham, ditto, 31st October, 1923.
Mr. S. R. Abhyankar, ditto, 31st October, 1923.
Mr. C. K. Desai, ditto, 31st October, 1923.
Mr. G. G. Bam, ditto, 31st October, 1923.
Mr. P. V. Gokhale, ditto, 12th December, 1923.
Mr. Verumal Lakhumal, to be Compounder, 24th January, 1923.
Mr. Amarnath Varma, ditto, 8th February, 1923.
Mr. A. Correa, ditto, 5th September, 1923.
Mr. S. Mohamed, ditto, 5th September, 1923.
Mr. Jurdit Singh, ditto, 13th September, 1923.
Mr. R. D. Pandya, to be Clerk, 1st November, 1923.

Promotions :—

Nil.

Retirement :—

Dr. W. Owen Prichard, Senior Medical Officer, 16th September, 1923.

Transfer :—

Dr. D. S. Scott, Medical Officer, transferred to the service of Zanzibar, 3rd July, 1923.

Agreements expired :—

Dr. J. A. H. Van Derwert, 18th June, 1923.
Mr. F. A. Gemmell (Temporary Sanitary Superintendent), 31st October, 1923.
S. A. S. Abdulla Khan, 14th October, 1923.
Compounder Daya Ram, 19th January, 1923.
,, Haji Khan, 14th October, 1923.
,, Bhagat Ram, 20th August, 1923.
,, Kushal Khan, 14th October, 1923.

Agreements terminated :—

S.A.S. B. P. Trivedi, on 9th June, 1923.
,, W. J. Paul, on 27th September, 1923.
,, J. W. Comfort, on 31st August, 1923.
Compounder Aziz Ahmed, on 19th May, 1923.
,, Haweli Ram, on 27th December, 1923.

Resignations :—

Miss N. E. Wells, Nursing Sister, 11th February, 1924.
Miss Z. E. Angus, ditto, 5th September, 1923.
S.A.S. J. N. Sen Gupta, 25th April, 1923.
,, R. Baxter, 1st July, 1923.

Deaths :—

S.A.S. G. V. Oak, 21st March, 1923.
,, P. K. Chakko, 19th July, 1923.
Compounder Bhagat Singh, 5th May, 1923.
Native Dispenser Austen Petro, one of the earliest employees in the Medical Department of the Civil Administration, died at Songea 10th December, 1923.

Invalided to England (*or to India*).

Dr. A. McA. Blackwood, 17th February, 1923, returned to duty after leave.
Compounder Mazumdar, 24th August, 1923.

LEAVE OF ABSENCE.

Name.	Appointment.	On Leave.	
		From.	To.
Dr. J. O. Shircore	Dy. P.M.O.	Throughout the year.	
Dr. W. O. Prichard	S.M.O.	5/3/23 to 15/9/23.	
Dr. J. McK. Clark	M.O.	21/6/23 till end of the year.	
Dr. C. R. Wallace	,,	Beginning of the year till 24/5/23.	
Dr. G. R. C. Wilson	,,	Beginning of the year till 2/4/23.	
Dr. C. B. B. Reid	,,	2/3/23 till the end of the year.	
Dr. R. R. Scott	,,	Beginning of the year till 17/5/23.	
Dr. J. H. Parry	,,	28/2/23 till the end of the year.	
Dr. A. McA. Blackwood	,,	22/2/23 to 18/10/23.	
Dr. J. A. H. Van Derwert	,,	5/2/23 to 18/6/23.	
Dr. J. G. McNaughton	,, (temp.)	Beginning of the year till 29/1/23.	
Dr. C. H. Philips	,,	2/5/23 till the end of the year.	
Dr. G. Maclean	,,	28/11/23 ,, ,,	
Dr. R. Nixon	,,	1/12/23 ,, ,,	
Mr. H. M. Fisher	Dental Surgeon	21/6/23 ,, ,,	
Miss F. M. Plant	Sen. N. Sister	5/5/23 ,, ,,	
Miss E. L. Kemsley	Nursing Sister	11/8/23 ,, ,,	
Miss M. Donald	,, ,,	Beginning of the year till 29/1/23.	
Miss E. Shearing	,, ,,	23/12/23 till the end of the year.	
Miss N. E. Wells	,, ,,	15/11/23 ,, ,,	
Mr. C. D. Dovey	Med. Storekeeper	21/2/23 to 5/11/23.	
Mr. H. Hammond	Lab. Assistant	15/11/23 till the end of the year.	
Mr. C. N. Rowe	San. Supdt.	15/11/23 ,, ,,	
Mr. T. Bell	,,	19/6/23 ,, ,,	
Mr. J. S. Humphrey	,,	15/11/23 ,, ,,	
J. C. Lemos	Sub-Asst. Surgeon	19/7/23 to 30/11/23.	
Diwan Chand	,, ,,	29/12/23 till the end of the year.	
Abdulla Khan	,, ,,	3/7/23 to 14/10/23.	
J. C. N. Sen Gupta	,, ,,	14/3/23 to 24/4/23.	
Ujagar Singh	Compounder	23/10/23 till the end of the year.	
Haji Khan	,,	3/7/23 to 14/10/23.	
Bhagat Ram	,,	18/5/23 to 20/8/23.	
Kushal Khan	,,	3/7/23 to 14/10/23.	
M. M. Dass	,,	Beginning of the year till 5/2/23.	
P. V. Mathew	,,	14/12/23 till end of the year.	
Hadad Khan	,,	24/5/23 to 13/11/23.	
L. M. Dass	,,	Beginning of the year till 17/5/23.	
A. L. B. Fernandes	Clerk	1/12/23 till end of the year.	
D. A. S. Nanayakkara	,,	Beginning of the year till 31/5/23.	

DISPOSITION OF THE EUROPEAN STAFF AND OF SUB-ASSISTANT SURGEONS.

Name and Qualification.	Rank.	Station Dec. 31, 1923.	Remarks.
J. B. Davey, M.B. (Lond.), M.R.C.S. (Eng.), L.R.C.P. (Lond.), D.T.M. (Liverpool).	P.M.O.	Dar-es-Salaam.	
J. O. Shircore, M.B., Ch.B. (Edin.) L.R.C.P., L.R.C.S. and L.R.F.P.S. (Edin. and Glas.), M.R.C.P. (Edin.).	Dy. P.M.O.	On leave.	
A. H. Owen, B.A. (Camb.), M.R.C.S. (Eng.), L.R.C.P. (Lond.), D.T.M. and H. (Camb.).	S.S.O.	Dar-es-Salaam.	
G. G. Butler, M.B.E., M.R.C.S. (Eng.), L.R.C.P.(Lond.),M.D.,B.Ch.(Cantab.).	Dir. of Lab.	Dar-es-Salaam	Acting as Dy. P.M.O.
T. H. Suffern, M.B., B.A.O., Ch.B., (Roy. University, Ireland).	S.M.O.	Tanga.	
C. L. Ievers, L.R.C.S., L.R.C.P. (Edin.), D.T.M. (Liverp.).	S.M.O.	Dar-es-Salaam.	
P. N. Nunan, B.A., M.D., M.B., B.Ch. (Dublin).	S.M.O.	On leave.	
J. H. Thomson, M.B., Ch.B. (Aberd.)	M.O.	Mwanza.	
J. McK. Clark, M.B., B.Ch., D.T.M. (Liverp.).	,,	On leave.	
C. R. H. Tichborne, L.A.H. (Dub.)	,,	Nahenge.	
C. R. Wallace, L.R.C.P., L.R.C.S., L.M. (Ireland).	,,	Kigoma.	
G. R. C. Wilson, M.R.C.S. (Eng.), L.R.C.P. (Lond.).	,,	Tukuyu.	
C. B. B. Reid, M.B., Ch.B. (Edin.), D.T.M. (Liverp.).	,,	On leave.	
R. R. Scott, M.C., M.B., B.S. (Durham), M.R.C.S. (Eng.), L.R.C.P., D.P.H. (Lond.).	,,	Dar-es-Salaam	Acting as M.O.H.
J. H. Parry, B.A. (Cant.), M.R.C.S. (Eng.), L.R.C.P. (Lond.).	,,	On leave.	
A. McA. Blackwood, M.B., Ch.B. (Glas.).	,,	Lindi.	
W. E. Haworth, M.B., C.M. (Edin.), B.Sc. (Edin.).	,, (temp.)	Dar-es-Salaam	Acting as Dir. of Lab.
J. G. McNaughton, M.D., M.R.C.P., M.B.C.M. (Edin.).	,, ,,	Tabora	Acting as S.M.O.
C. H. Philips, L.M.S.S.A. (Lond.)	,,	On leave.	
G. A. Williams, L.R.C.P. (Lond.), M.R.C.S. (Eng.).	,, (temp.)	Bukoba.	
G. Maclean, M.B., Ch.B. (Glas.)	,,	On leave.	
C. F. Shelton, M.D., L.R.C.P. (Lond.), M.R.C.S. (Eng.).	,,	Arusha.	
R. Nixon, M.B., Ch.B., D.T.M., D.P.H. (Liverp.).	,,	On leave.	
J. M. Semple, B.Ch., M.B. (Dub.), B.A.O. and L.M. (Rot.).	,,	Dar-es-Salaam.	
A. I. Meek, L.R.C.P., L.R.C.S., D.P.H. (Edin.), L.R.F.P. and S. (Glas.).	,,	Tanga.	Acting as M.O.H.
J. J. B. Edmond, M.C., M.B., Ch.B. (Edin.), D.T.M. and H. (Lond.).	,,	Moshi.	
O. Fitzpatrick, M.B., Ch.B. (Edin.), L.R.C.P.,L.R.C.S.(Edin.), L.R.F.P.S. (Glas.).	,,	Not yet arrived.	
A. R. Lester, M.B., B.S. (Bombay), F.R.F.P. and S. (Glas.), D.P.H. (Edin.), D.T.M. and H. (Edin.).	,,	,, ,,	
H. M. Fisher, L.D.S., R.C.S. (Eng.)	Dental Surgeon	On leave.	
Miss F. M. Plant	Sen. N. Sister	,,	
Miss E. L. Kemsley	Nursing Sister	,,	
Mrs. M. A. Cartlidge	,, ,,	Moshi	
Miss J. Fraser	,, ,,	Tanga.	Acting as S.N.S.
Miss S. Riordan	,, ,,	Tanga.	
Miss M. E. Shearing	,, ,,	On leave.	
Miss W. R. Grant	,, ,,	,,	

DISPOSITION OF THE EUROPEAN STAFF AND OF SUB-ASSISTANT SURGEONS.—*continued.*

Name and Qualification.	Rank.	Station Dec. 31, 1923.	Remarks.
Miss E. Bishop	Nursing Sister	Dar-es-Salaam.	Acting as S.N.S.
Miss N. E. Wells	,, ,,	On leave.	
Miss B. G. Allardes	,, ,,	Dar-es-Salaam.	
Miss H. M. Sanders	,, ,,	Tabora.	
Miss M. B. H. Macrae	,, ,,	Dar-es-Salaam.	
Miss M. Donald	,, ,,	Tabora	
Miss K. Thompson	,, ,,	Dar-es-Salaam	
Miss A. Muncaster	,, ,,	Tanga.	
Mrs. C. M. Fichat	,, ,, (temp.)	Dar-es-Salaam.	
Mrs. N. K. Turnley	,, ,,	Arusha	
Miss J. E. Wootten	,, ,,	Not yet arrived.	
Mr. C. D. Dovey	Med. Storekeeper	Dar-es-Salaam.	
Mr. H. W. Hassard	Asst. ,,	,,	
Mr. H. Hammond	Lab. Assistant	On leave.	
Mr. J. L. Mason	Clerk	Dar-es-Salaam.	
Mr. C. N. Rowe	San. Supt. (1st grade)	On leave.	
Mr. W. A. Moore	,, ,,	Dar-es-Salaam.	
Mr. R. E. Owen	San. Supt. (2nd grade)	Tabora.	
Mr. T. Bell	,, ,,	On leave	
Mr. J. S. Humphrey	,, ,,	,,	
Mr. W. H. Jones	,, ,,	Tanga.	
Mr. W. M. Mackay	,, ,,	Dar-es-Salaam.	
Mr. J. Spittles	Supt., Lun. Asylum.	Lutindi.	
Mrs. C. M. Spittles	Matron, Lun. Asylum	Lutindi.	
Mr. N. M. Moore	Clerk Storekeeper.	Not yet arrived.	
B. G. Pandit, L.C.P. and S. (Bombay)	Sub-Asst. Surgeon.	On transfer.	
D. G. Kelkar, L.C.P. and S. (Bombay)	,, ,,	A.B.B. Commission.	
J. C. Lemos, F.C.P.S. (Calcutta)	,, ,,	Iringa.	
Diwan Chand, Certified Lahore Medical School.	,, ,,	On leave.	
S. V. Pantwaidya, Pyramjeejijeebhoy Medical School (Poona).	,, ,,	,,	
D. A. Purandre, L.C.P. and S. (Bombay)	,, ,,	Bukoba.	
Y. L. Moole, L.C.P. and S. (Bombay)	,, ,,	Mikindani.	
C. K. Borsada, L.C.P. and S. (Bombay)	,, ,,	Morogoro.	
M. S. Desai, L.C.P. & S. (Calcutta)	,, ,,	Bagamoyo.	
P. S. Paranjpe, L.C.P. and S. (Bombay)	,, ,,	Singida.	
J. F. Macedo, L.C.P. and S. (Bombay)	,, ,,	Kilwa.	
M. C. Thomas, L.M.S. (Travancore)	,, ,,	Mwanza	
Y. B. Kelshikar, L.C.P. and S. (Bombay)	,, ,,	Tanga.	
G. V. Sakrikar, L.C.P. and S. (Bombay)	,, ,,	Pangani	
K. R. Pagadala, L. C. P and S. (Bombay)	,, ,,	Songea.	
B. K. Christian, L.C.P. and S. (Bombay)	,, ,,	Ujiji.	
M. P. Dave, L.C.P. and S. (Bombay)	,, ,,	Dar-es-Salaam.	
A. K. Pathreekar, Certificated Hyderabad, Deccan, Medical School.	,, ,,	Musoma.	
Chunilal Khanna	,, ,,	Dodoma.	
T. M. Joseph, L.M.P. (Madras)	,, ,,	Kondoa-Irangi.	
J. F. Freeman, L.C.P. and S. (Bombay)	,, ,,	Tabora.	
W. A. Irvine, L.C.P. and S. (Bombay)	,, ,,	Dar-es-Salaam.	
R. G. Pradham, L.M.F. (Bengal)	,, ,,	Shinyanga.	
S. R. Abhyankar, L.C.P. and S. (Bombay)	,, ,,	Dar-es-Salaam.	
C. K. Desai, L.C.P. and S. (Bombay)	,, ,,	Bukoba.	
G. G. Bam, L.C.P. and S. (Bombay)	,, ,,	Tanga.	
P. V. Gokhale, L.C.P. and S. (Bombay)	,, ,,	On transfer.	
M. B. Pandya, L.C.P. and S. (Bombay)	,, ,,	Not yet arrived.	
L. Coro (Malta University)	,, ,,	Namanyere.	

PROFICIENCY IN SWAHILI.

During 1923 one Medical Officer passed the higher standard examination in Swahili and one Medical Officer, one Nursing Sister, three Sanitary Superintendents, the Laboratory Assistant and one Sub-Assistant Surgeon the lower standard. One Medical Officer passed the written part only of the lower standard examination.

(b)—FINANCIAL.

Estimated Expenditure for period 1st January to 31st December, 1923 :—

	£
MEDICAL DIVISION.	
Principal Medical Officer and Deputy Principal Medical Officer	2,200
Clerical Staff, Medical Storekeepers, Packers, Messengers, etc.	3,056
Senior Medical Officers ...	2,341
Medical Officers ...	12,765
Dental Surgeon ...	769
	£21,131
SANITATION DIVISION.	
Senior Sanitation Officer, Medical Officers of Health and Subordinate Staff for the suppression of Epidemic Diseases ...	5,127
LABORATORY DIVISION.	
Director of Laboratory and Laboratory Assistant ...	1,281
Total Personal Emoluments ...	£27,539

Other Charges :—

	£
ADMINISTRATIVE DIVISION	
Incidental charges ...	135
MEDICAL DIVISION.	
General Miscellaneous ...	6,252
SANITATION DIVISION.	
Maintenance of Lepers, Lunatics and Incurables ...	3,607
Sanitary Labour and Upkeep of Infectious Diseases Hospital	11,232
Miscellaneous ...	757
LABORATORY DIVISION.	
Miscellaneous ...	448
Total other charges ...	£22,431

	£
SPECIAL EXPENDITURE.	
Sanitary Equipment ...	882
Travelling Equipment ...	114
Medical Library ...	135
	£1,131

	£
HOSPITALS AND DISPENSARIES.	
Personal Emoluments :—	
Nursing Staff ...	3,385
Superintendent and Matron, Lunatic Asylum ...	590
Indian Medical Assistants ...	9,263
Native Dispensers, Hospital Attendants and Dressers ...	3,365
	£16,603

Other Charges :—

	£
Medical and Surgical Stores	6,520
Medical Equipment and Furniture	625
Upkeep of Hospitals	9,500
	£16,645

STATEMENT OF REVENUE, 1923.

	£
From Hospital Fees and Sale of Drugs, etc.	3,546
Fees collected by Port and Marine Department for Bills of Health	505
Sale of Vaccine to Zanzibar Government	320
	£4,371

MEDICAL LIBRARY.

Thirty-two new books, including 2 volumes of Medical Journals bound by the Government Printer, have been added to the Library in the Principal Medical Officers's Office during 1923, and 4 have been issued permanently to stations. At the end of the year the library contained 141 books (157 volumes). Three new books (4 volumes) have been added to the library at the Laboratory which now contains 30 books in English, besides German works.

The principal scientific periodicals of Medical interest have been taken in as before and copies of the Tropical Diseases Bulletin and the Annals of Tropical Medicine and Parasitology distributed to a number of stations.

The two votes under which these purchases have hitherto been made were combined into one vote of £150 for " Library " in the Estimates for 1923-24.

II. *PUBLIC HEALTH.*

(i.)—GENERAL DISEASES.

Diseases of the Blood and of Metabolism: Diet Deficiency Diseases.—Anæmia in natives commonly connotes Ankylostomiasis or Schistosomiasis, but it is a constant feature of Trypanosomiasis also. On a tour of the Trypanosomiasis area in Mwanza, one was struck by the number of anæmic women; on enquiry, the condition seemed to be due to a recent parturition in nearly all cases. The case of hœmophilia was that of an Indian child, aged seven, who died after circumcision performed by a local barber. Cases diagnosed as Purpura are described at p. 294 by the Medical Officer, Bukoba. Some remarks by the Acting Senior Medical Officer, Tabora, on enlargement of the spleen in natives will be found at p. 180. Whether any of these cases correspond to those known elsewhere as Egyptian Splenomegaly is doubtful: Malaria, Schistosomiasis and intestinal parasites are probably the usual causes of splenic enlargement in this Territory.

A native case of Hodgkins Disease is reported by the Medical Officer, Moshi, but the patient passed from observation.

The cases of diabetes were Asiatic patients, no native case being reported. Simple goitre has a limited distribution, the cases coming chiefly from valleys in high level country, such as Rungwe District, where Dr. Wilson reports it to be by no means uncommon.

Although cases of both acromegaly and achondroplasia were well known to the writer in Nyasaland, no cases of these diseases or of infantilism and cretinism are reported. If the numerous cases of gout which Asiatic subordinates report have any existence in fact, it must be of the " poor man's " variety, but these diagnoses have been changed to " arthritis " for the purposes of the returns attached to this report. Arthritis is, indeed, common enough amongst natives, but in many cases its nature is obscure: pyorrhœa and other sources of septic infection are, of course, very common. Food deficiency diseases do not figure prominently in the returns, but are apt to be overlooked. Seventeen cases of scurvy, as compared with 31 in 1922, were reported in 1923, and 2 only of beri-beri (1 remaining from last year), as compared with 34 in 1922 and 1 in 1921. There was nothing in the nature of widespread famine during 1923, though localised shortages occurred, as in most years. Many native cases of somewhat vague illness, with anæmia, asthenia or diarrhœa as, perhaps, the only obvious symptoms, come under notice and close investigation would doubtless assign many of these to Food Deficiency Disease. The majority of the 598 cases of "anæmia" and the 143 of "debility," which appear in the returns for 1923, are probably due to ankylostomiasis, schistosomiasis and malaria, but it may well be suspected that vitamine deficiency furnishes its quota. The 3 cases of scurvy treated at the Sewa Hadji Hospital, Dar-es-Salaam, were all Indians; two of the five at Tabora were prisoners and quickly responded, so the Acting Senior Medical Officer reports, to a daily ration of fresh lemons and green vegetables: one of the five cases at Morogoro, also, was a prisoner. An outbreak of diarrhœa resulting in the loss of some 20 lives occurred at Morogoro gaol and was attributed by the Director of Laboratory and the Senior Sanitation Officer, who investigated it, to vitamine deficiency. The 5 cases of rickets recorded were in Asiatic children. No case of Pellagra is reported in 1923: one was reported in 1922 at Mwanza gaol.

Gross organic lesions of the *Nervous System* are seldom reported in natives. The Senior Medical Officer, Tanga, records two typical cases of Paralysis Agitans in natives: the second was a middle-aged male and shewed tremor, rigidity, the mask like facies and the typical gait. No cases of Encephalitis lethargica have been observed in the Territory and the Paralysis Agitans cases at Tanga were probably genuine instances of Parkinsons Disease. The Medical Officer, Bukoba, Dr. G. A. Williams, reports at pp. 178-179 cases of suspected General Paralysis and he speaks from knowledge of asylum work in England. The same officer reported a case of hysterical aphasia of six months' duration following a fall from a tree: the patient was a healthy male native, aged about 23, and the power of speech was restored to him by chloroform anœsthesia. He has been seen several times since and shews no indication of a relapse. Unfortunately, as Dr. Williams somewhat quaintly remarks, he was unable to repeat his success in the case of the numerous dumb persons who made their way to the hospital when the news of this cure was noised abroad.

Epilepsy is common and frequently severe in natives: it is hoped that the success Dr. McNaughton has had in treating this disease with Bismuth Sodium Potassium Tartrate (*see* p. 176) at Tabora may be repeated elsewhere.

Mental Diseases are discussed by the Superintendent of the Asylum at p. 147. In addition to the cases at Lutindi, 35 lunatics were detained in various gaols on December 31st, 1923, including 3 who were taken over at Lukira by the Belgian authorities on rectification of the frontier at the new year. Plans for the new Central Asylum have been drawn up and the site selected at Morogoro, and it is hoped that it will not be necessary much longer to detain these cases in Prisons.

Diseases of the Eye, principally Conjunctivitis, are frequent amongst the native population: cases of blindness, due commonly to small-pox, cataract or injury, are fairly numerous. A case of hæmorrhage into the vitreous, probably of malarial origin, came under treatment: the patient was a European official and made a satisfactory recovery. Cataract is common and the successful operative treatment of this condition is so appreciated by the native that it would be well for all medical officers to be masters of it. The principal sultan of one district, who had long been blind from cataract, was particularly appreciative of the operation and the glasses provided.

Diseases of the Ear are also very numerous and discharging ear cases in native children are a troublesome problem in dispensary practice. Fortunately, however, the number of totally deaf does not appear to be large. Amongst the European population diseases of the *Respiratory* and *Circulatory Systems* figures less prominently than in the returns for Great Britain, but pneumonia causes a heavy mortality amongst natives, and bronchitis, not usually of severe degree, is very common. 306 cases, mostly natives, of lobar pneumonia were treated in hospital and of these, 59 proved fatal: complications and sequelœ seem to be uncommon, only 3 cases of empyœma are reported under Respiratory Diseases, but 3 other cases are mentioned under "Injuries." Valvular disease of the heart is seldom reported in natives and it is perhaps noteworthy that, in a population in which syphilis is common, the late vascular sequelœ of this disease are so seldom observed. 2 cases of aneurysm of the subclavian artery were reported from Tabora: one was a native and the other an Arab aged about 50 who denied syphilitic infection, but admitted to Yaws. Neither of these cases was submitted to operation. One well authenticated case of suppurative pericarditis died in Arusha Hospital, a native of the district: it was possibly a manifestation of a pyœmia.

In all classes diseases of the *Digestive* organs are very common. The suspicion that, of the numerous cases of stomatitis in natives, many are mild forms of scurvy can hardly be rejected. Hepatic Abscess is remarkably infrequent considering the prevalence of amœbic dysentery, and only 4 cases, none of which were in Europeans, were reported in 1923. Of these, one only was submitted to operation: the diagnosis in the others, all of which were reported by the Asiatic staff, is open to question. A full report on a case, a native of Uganda, who recovered after two operations, will be found at p. 182. Cirrhosis of the liver is occasionally reported in natives: at the post-mortem on a native, who died suddenly at Mwanza, hepatic cirrhosis was the only pathological condition noted. From gastric and duodenal ulcer the native appears to be exempt. Dental caries is far more common in natives than is usually believed. From Bukoba is reported a case of volvulus of the colon of some importance, for the fact of partaking of native beer, at the house of a friend, some four hours before the onset of symptoms, inevitably aroused a strong suspicion of poisoning in the native mind: a post-mortem examination disclosed the true cause of death. At Arusha, another case of acute obstruction, believed to be due to volvulus, died after a second operation to locate the lesion, a preliminary drainage of the gut having resulted in rapid wasting: the patient was a K.A.R. askari. At Arusha, too, a left iliac colotomy was not successful in relieving a case of stricture of the sigmoid colon in a European patient: the stricture was suspected to be post dysenteric. Acute intestinal obstruction also accounted for one of the four European deaths in the Hospital Dar-es-Salaam. No cases of sprue have been reported. Appendicitis appears to be infrequent in natives: one case of appendix abscess was reported in 1922 and this year an interesting case of abdominal abscess, probably appendicular, from which an Ascaris Lumbricoides was removed, came under treatment at Bukoba: it is reported in full at p. 179. One European Official died of acute perforative appendicitis and another was successfully operated upon at the Government Hospital Nairobi, after having an attack of appendicitis at Mwanza.

Urinary System.—Cases returned as nephritis or hœmaturia are probably due to Schistosomiasis in most instances, but calculus in natives is not unknown. Further remarks on this group will be found at pp. 21-22.

Diseases of the Male Generative System are referred to in other sections of this report, *see* pp. 21-22.

Diseases of the Female Generative Organs.—But few native cases of this group come under notice, although there can be no doubt that they are frequent. Those cases of delayed labour which seek admission to hospital have commonly been subjected to various manipulations at the hands of native handy women and are frequently septic. The cases which were subjected to Cœsarean Section and Porro's Operation (*see* Table of Operations, p. 146) were Indian women: the former had been delivered at a previous pregnancy by craniotomy.

Diseases of Organs of Locomotion.—Arthritis, as already mentioned, is common in natives. Rheumatic fever is not uncommonly diagnosed by the Asiatic staff, but in my own experience it is very rare in Tropical Africa, both in European and natives. Bone disease is frequent and, apart from the well-known dactylitis of Yaws, many cases of localised necrosis of long bones come under treatment: these are probably due to syphilis and Yaws in most cases; not infrequently a rapidly extending tropical sloughing ulcer extends down to and sets up necrosis in bone.

Diseases of Connective Tissue.—Abscess is extremely common and not a few cases of large deep-seated, sometimes multiple, chronic abscesses come under treatment. The œtiology of these large abscesses is often obscure, some, no doubt, are tubercular, possibly some are filarial. They appear to be more common at Arusha than elsewhere.

Diseases of the Skin are almost universal amongst natives. Scabies, frequently masked by severe impetigo, and various forms of tinea constituting the bulk of the cases seeking attention. A few cases of mycetoma are reported, but the causative fungus is not often recognised. Two cases of a curious serpiginous ulceration of long standing, affecting the face and neck, and closely resembling Lupus vulgaris, were seen by the writer in Mwanza Hospital while on tour. There was scarring in the centre and extension at the periphery:

ectropion had resulted in both cases. Antisyphilitic and other treatment had been tried without success. Ulcers have been included under Diseases of the Skin and are a great cause of disablement amongst natives. Some of these rapidly extending ulcers are almost malignant in their destructiveness: the Medical Officer Moshi (Dr. Edmond), reports one which had extended through the bones of the leg, and the foot was attached merely by the Tendo achillis: the amputation wound healed well, but a mass of glands in the groin broke down into a fungating hœmmorrhagic ulcer extending deeply amongst the vessels. It was curetted with some benefit. At the same station a foot rendered gangrenous by severe ulceration, was amputated. *See* also " Mti Mgongwa," by J. G. McNaughton, p. 176.

Injuries of the most varied description and in large numbers add much to the volume of work at all stations. In some districts, *e.g.*, Songea and Rufiji, injuries by wild beasts are reported to be very common: some of these cases are of a very severe nature and, owing to delay in reaching hospital, are in a highly septic condition when they come under treatment. Spear and knife wounds are common amongst most tribes: an interesting case is reported by the Medical Officer, Moshi (Dr. J. J. B. Edmond, M.C.), in which a spear was thrust through and through the left loin; a fæcal fistula, but no general peritonitis resulting. At Arusha, two spear wounds of the thorax, one involving the lung, were treated: both were complicated by empyœma and both recovered after operation which, in one case, included excision of part of a rib and suture of the lung. Another case of spear wound of the lung proved fatal. In many instances the nature of the injuries recorded in the returns is not specified: dislocations of hip are mentioned twice and of the shoulder three times: fracture of the femur twice.

A compound fracture dislocation of the ankle joint at Arusha was complicated by Gas Gangrene and terminated fatally.

Tumours.—The tumours met with in the native population are commonly fibromata and lipomata: their chief characteristic the enormous size they are usually permitted to attain before skilled attention is sought. Unfortunately, details of the tumours recorded are seldom supplied. A curious sausage-shaped tumour, described as a fibroma, was removed from the buttock of a native by Dr. J. H. Suffern. A native medicine man had vigorously cauterised this growth before the patient consulted Dr. Suffern. A fibrous tumour of the upper jaw was also removed by Dr. Suffern: its large size necessitated splitting of the cheek, but the continuity of the jaw was not interfered with and the result was very satisfactory. The diagnosis in several cases returned as carcinoma and sarcoma by the Asiatic staff has been considered doubtful and such cases appear as " Tumours Unclassified " in the returns: a definite case of carcinoma of the stomach in a native is reported by Dr. Shelton at p. 181. At Moshi a European Official died of carcinoma in the abdomen and the Medical Officer at that station (Dr. J. J. B. Edmond, M.C.) also reports two native cases of advanced carcinoma of the liver which were lost sight of and an interesting case, which he describes as an epithelioma of the arm, in an albino native. This man shewed multiple warty growths on the face, a larger pedunculated growth having been removed by Dr. Wilson some months before, but he returned with a very large ulcer of the arm of a malignant nature " like a rodent ulcer." Unfortunately, this patient absconded from hospital when another patient died under chloroform and was lost sight of.

An epithelioma of the penis is reported from Mwanza, but details are lacking. At Tanga a middle-aged native died in hospital and it was found that the greater part of his liver had been " replaced by an enormous primary carcinoma."

Congenital malformations of a minor degree are common amongst natives of Eastern Africa, as Dr. H. S. Stannus has shewn. A case of congenital absence of the uterus and atresia of the vagina was reported from Arusha: on exploratory laparatomy Dr. Shelton found that the uterus was represented by a small fibrous nodule. The same officer reports in full at p. 177 a case of congenital defect of the male urethra in a native infant.

There is little of interest in the returns under " *Poisons* " except that two cases of Belladonna poisoning are mentioned. One of these was a European child who recovered after exhibiting typical symptoms.

Some 35 cases of snake bite are recorded.

Animal Parasites.—Helminths are dealt with on pp. 17-98.

Cutaneous myiasis is by no means uncommon in Europeans, and though native cases are not frequently seen they must, no doubt, often occur and are probably dealt with by friends as satisfactorily as are Chiggers.

Chiggers are widely distributed: the returns give little idea of their prevalence.

It is scarcely correct to mention Bats under this heading and they do not appear in the returns. Amongst the annoyances of life in the tropics they occupy no humble position. Having obtained access to the interior of the roof of a house they are capable of disturbing sleep by their squeaking and peregrinations and of creating a most unpleasant stench. All houses in the tropics should be constructed so as to deny access, between roof and ceiling, to these creatures. The Medical Officer, Mwanza, reports that 799 bats were killed on removal of part of the roof of his house. One trusts that their reputed partiality for mosquitoes has foundation in fact.

(F.)—COMMUNICABLE DISEASES.

Anthrax.—There are reasons for believing that this disease occasionally occurs in limited outbreaks amongst cattle keeping tribes, such was probably the nature of a fatal outbreak of disease in the interior of the Musoma sub-district in October, though Plague has occurred in that district and may have been responsible. The Acting Chief Veterinary Officer informs me that the only outbreak in cattle recorded during 1923 was at Tingwini, Ntussu sultanate, Mwanza district, in July: Musoma is about 70 miles from Ntussu.

Cerebrospinal Meningitis.—103 cases with 91 deaths were reported in 1923 as against 12 cases each in 1922 and in 1921.

NOTE.—It will be observed that these figures do not agree with those shewn at p. 96 in the report of the Senior Sanitation Officer which is compiled from the weekly bulletins. It appears that the two cases at Kigoma were not reported by telegram or in the monthly sanitation reports and the Senior Sanitation Officer had departed on leave before the Annual Medical Report, 1923, for Kigoma, in which they are mentioned, had been received.

The disease has been prevalent since the first week of the year in Mwanza district, whence 90 of the 101 cases were reported. In June, several cases occurred in Nasa Sultanate on the shore of the lake and, subsequently, in Ntussu sultanate and Massansa Ndogo. In June, also, there was an epidemic of some fatal illness, believed to be Cerebrospinal Meningitis, in Usinga, to the west of the district. In Mwanza town there was a small outbreak and two of the four cases died: one European was infected, but recovered. In the adjoining district of Bukoba an epidemic, traced to infection brought by porters from Ruanda, caused six deaths before the Medical Officer reached the infected village (Ibwera)—30 miles from Bukoba town. He saw one case and verified the diagnosis by Lumbar puncture. The epidemic was energetically dealt with by the native authorities acting on the advice of the Medical Officer and was restricted to nine cases with six deaths. In 1922, no cases were reported from the lake area.

In Dar-es-Salaam only one case, a native official, was reported: the disease terminated fatally.

Arusha and Moshi districts have furnished most of the cases in previous years but, in 1923, one case only was reported from each of these districts. One was a native who died in Arusha Hospital: on lumbar puncture, semipurulent fluid, containing Gram-negative intra- and extra-cellular diplococci was withdrawn.

Kigoma township contributed two cases, an Indian and a native. They occurred in July and September and both ended fatally.

No cases have been reported south of the central railway during the past three years, but medical supervision in this part of the country is particularly inadequate.

Cholera has been recorded from East Africa in times past, but the Territory has been exempt from this disease since its administration came into British hands. The Sub-Assistant Surgeon, Kilwa, reported one case as cholera in 1923, but, on investigation, it was found to have almost certainly been food poisoning and is returned under this heading.

Dengue.—Nine cases reported in 1923, all from the European Hospital Dar-es-Salaam, as against none in 1922 and one in 1921. These cases were very typical examples of the disease and presented a well-marked rash: they all occurred in the course of a few weeks in the early part of the year and originated in neighbouring houses.

Diphtheria.—No cases in 1923 compared with 2 in 1922 and none in 1921.

Dysentery is reported upon by the Senior Sanitation Officer on p. 95.

Encephalitis lethargica.—No cases reported, as in the two preceding years.

Enteric Fevers occur sporadically in the Territory: 21 cases were reported during the year as compared with 18 in 1922 and 19 in 1921; probably many native cases are undiagnosed. Nine cases were admitted to the European Hospital, Dar-es-Salaam, 6 being Europeans and three Goans, all recovered: infection was acquired at Dar-es-Salaam in three instances (two being husband and wife), at Morogoro in three, at Dodoma in two and in India in one case. This last was by far the most severe infection. Eight of these were confirmed bacteriologically. From six of these cases information as to protective inoculation is available: three had never been inoculated, two had been inoculated against typhoid and para-typhoid in April, 1916, and March, 1917, respectively, during active service, and one had been inoculated "during the war." Three cases only were admitted to the Sewa Hadji Hospital, Dar-es-Salaam. One case, a European child, occurred at Arusha: although the report from the Laboratory Dar-es-Salaam on the serum reactions of this case was negative for typhoid and para-typhoid a, b and c, the Medical Officer is convinced that the clinical signs and symptoms admit of no other disgnosis. Two cases (natives) were treated at Mwanza Hospital.

Seven-day Fever.—Under this heading the Senior Medical Officer, European Hospital, Dar-es-Salaam, has placed a small outbreak of seven cases of a non-malarial fever which occurred in Dar-es-Salaam in December. He describes the characteristics of this fever as follows:—

1. Gradual onset (no rigor; but a feeling of malaise for about a day previous to the onset of Fever).
2. A continuous Fever, lasting for about seven days, running between 99 and 102.
3. A relatively slow pulse (perhaps 70 when the temperature might be 100).
4. Headache, general malaise, and general aches and pains.
5. A dirty-coated tongue which cleared at the edges towards the end of the attack.
6. A feeling of prostration for the first day or two after convalescence—quite distinct from that following an ordinary attack of Malaria.
7. A scarletiniform rash which closely resembled Prickly Heat and which may have been this condition, as the weather at the time these cases occurred was extremely sultry.
8. The blood negative for parasites and blood culture in ox bile also negative.
9. Seven cases were observed in the month of December—the month in which the outbreak began.

Most of the cases were in European Officials.

Glanders.—No cases reported: there were none in 1922 or 1921.

Helminthic Diseases.—Schistosomiasis: a total of 171 were reported in 1923 as against 35 in 1922.

Fifty-seven cases were returned as S. hœmatobium, 2 as S. mansoni and 112 were not differentiated. Of the total, 114 were reported from Tanga: these, although not classified in the report, were principally of the urinary form and many of them were discoverd by the Medical Officer of Health in routine examination of the school children (*see* p. 75). The Senior Medical Officer, Tanga, reports that natives are beginning to realize that the disease can be effectually treated and, in consequence, are attending in larger numbers.

It is probable that the disease is widespread in the Territory although the only other stations from which cases were reported were Dar-es-Salaam, Dodoma, Morogoro, Mwanza, Namanyere, Singidda, Tabora and Takuyu.

Tœnia is a very common parasite amongst the native population due, in the large majority of cases, to the consumption of measly beef: pork is seldom partaken of. 1,013 cases were reported in 1923 as against 691 in 1922 and 692 in 1921. More than half the cases are returned by the Medical Officer, Moshi. The S.M.O., European Hospital, Dar-es-Salaam, reports a case in a European child aged 2 years and 4 months: this child had been fed on raw meat juice.

Ankylostomiasis is reported upon at p. 98 by the Senior Sanitation Officer.

Filariasis is widely distributed: the operation for removal of large Elephantoid tumours is becoming increasingly popular amongst natives and, as will be seen on reference to the table of Surgical Operations, p. 146, 81 cases were operated upon with two deaths. Many of these tumours are of huge dimensions.

Ascariasis is very prevalent: 1,787 cases were reported in 1923, 3,255 in 1922. Half of the cases were reported by the Medical Officer, Moshi, and 682 from Arusha. The M.O. Moshi remarks that this condition is almost universal in his district and that coma and convulsions, which usually quickly respond to treatment by santonin, are not infrequent in the victims. Two young adults died comatose: post-mortem " bunches of round worms were found in the stomach and small gut " in one and " large numbers " of ascaris in the other. An interesting case of inguinal abscess from which an ascaris was removed by Dr. Williams, Medical Officer, Bukoba, is recorded at p. 179.

Dracunculus: no case of Guinea worm has been recorded during the past three years.

Tricocephalus dispar is common and only occasionally reported: one such case, a Goan, was reported by the S.M.O., European Hospital, Dar-es-Salaam.

Influenza is dealt with in the report of the Senior Sanitation Officer, p. 92.

Leishmaniasis does not exist, so far as is known, in the Territory, but the occurrence of undoubted cases of Kala-Azar in Kenya demands watchfulness on the Tanganyika side of the border. " Oriental sore " is not uncommonly returned by the Asiatic subordinate staff, but no authenticated case is known and such sores appear under the heading " Ulcers " in this report.

Leprosy is dealt with by the Senior Sanitation Officer at pp. 98-99.

Malaria and Blackwater Fever are reported upon by the Senior Sanitation Officer on pp. 87-89. No cases of Blackwater Fever in natives have been recorded this year. How far Malaria contributes to the death rate of native children is uncertain: definite knowledge on this subject would be of the greatest interest. The M. O. Tukuyu reports the deaths, within twenty-four hours of admission to hospital, of two native children: they came from the highlands of the Livingstone mountains and were admitted in an unconscious condition. The only sign discovered was a massive blood infection with ring form malarial parasites. In both cases intravenous injection of quinine was without avail. The M.O. Arusha reports a similar case, a native child aged 6, admitted to hospital in a moribund condition, due, apparently, to a sub-tertian infection. For each such case that reaches hospital there must be many deaths in native villages. Nor does the adult native escape. The native ranks of the Kings African Rifles in Dar-es-Salaam suffer much from malaria in the malarial season of the year. As in the case of tick fever, it is probable that removal from his natural environment has much to do with morbidity from malaria in the native: the degree of tolerance he has acquired may not suffice to withstand mass infection under changed conditions of life and strenuous training. The laxity of the European and Asiatic population with regard to quinine prophylaxis has been mentioned elsewhere: the frequency with which, on the medical certificate for officers proceeding on leave, one reads entries, such as " takes quinine irregularly " or " takes quinine when he feels off colour " is further evidence of this laxity. Mosquito boots, too, are not worn as generally as they should be: the inventor of an elegant boot to protect ladies in evening dress must surely have a fortune awaiting him: it must be admitted that the ordinary type of mosquito boot does not shew to advantage with a smart evening frock.

Malta Fever.—One case (native) was reported from Arusha at the end of last year: he made a good recovery. No new cases are reported for 1923. The Acting Chief Veterinary Officer informs me that contagious abortion of cattle undoubtedly occurs in the Territory, but he has no very definite information as to its distribution: it is believed to occur in Arusha district, but abortions amongst cattle also occur in Rinderpest and East Coast fever infections which have been prevalent.

Mumps, of which 54 cases were reported in 1922 and 41 in 1921, has been very prevalent, 92 cases being reported: 35 of these occurred at Mikindani.

Measles.—17 cases in 1923 as compared with 62 in 1922 and 267 in 1921.

Plague is discussed on pp. 93-94 by the Senior Sanitation Officer.

Rabies.—No cases reported in 1923 as in the two preceding years.

Relapsing (Tick) Fever.—119 cases were reported in 1923 as against 44 in 1922 and 29 in 1921. Ornithodorus moubata is widely distributed in the Territory and, during the war, established itself in several European residences. The danger of acquiring infection from bites of the tick appears, however, to vary greatly in different districts. Thus the Medical Officer, Bukoba, reports that the tick is common and Europeans are not infrequently bitten in that district, but they do not acquire Relapsing Fever: no cases are reported from Bukoba district. In the adjoining district of Mwanza, 4 European cases occured and 9 native cases were treated; the blood of one of these, a child, was described as "swarming with spirilla." The Kilosa—Iringa and Mwanza—Tabora roads are fruitful sources of infection, especially the former: 44 cases were treated at Iringa almost all of which acquired infection on the road.

Two cases in the European Hospital, Dar-es-Salaam, were of considerable interest: one was a Goanese patient admitted with bilateral facial paralysis. An attack of pyrexia led to a blood examination which revealed a spirillum infection. Appropriate treatment with neokharsivan cured the spirillum infection and the facial paralysis. As far as could be acertained, infection had been acquired in Dar-es-Salaam. The second case was that of a European lady infected while on a visit to Tabora: she relapsed after four injections of Neokharsivan and exhibited meningitic symptoms of such severity that lumbar puncture was twice performed, with considerable amelioration of symptoms. At Tanga the Senior Medical Officer (Dr. T. H. Suffern) reported a European case, infected between Tanga and Handeni, which relapsed after two intravenous injections of neokharsivan g. 0.75. It was a severe case with jaundice and three relapses occurred. At the Sewa Hadji Hospital, 30 cases were treated, five of whom weie K. A. R. Askari.

The difficulty of eradicating the tick once it has obtained a footing in a building of any kind is very great. Gaols are particularly liable to become infested.

Small-Pox and Vaccination are considered by the Senior Sanitation Officer, *see* pp. 95-96.

Tetanus.—Five cases reported as against 9 in 1922 and 3 in 1921. In one case, at Tanga, the disease followed Cæsarean Section, but the patient fortunately recovered

Human Trypanosomiasis is dealt with by the Senior Sanitation Officer on pp. 89-92.

There can be little doubt but that cases occur in parts of the Territory other than Mwanza district and it is intended to investigate this question as soon as staff is available. Tsetse fly investigations are in the hands of the Game Warden who is gradually demarcating the infected districts—no small task in a country of 365,000 square miles, some two-thirds of which are believed to be fly infested. To the writer it appears that the only practical solution of the tsetse fly problem lies in cultivation of the land and a general raising of the natives standard of living, including sanitation in its broadest meaning. Something also, no doubt, can be done by controlling native settlement, as proposed by the Game Warden. Increase of cultivation demands increase of population and help from the Agricultural Department: the latter is available and is already bearing bruit. But what is needed is people: many of our eleven inhabitants per square mile, low as that figure is, live in large townships. Most of the remainder live under most primitive conditions and are engaged in a fierce struggle for existence: their fight against wild nature is a very real one: their own lives and those of their children are in constant danger from epidemic disease and famine, their crops from destruction by game and their domestic animals from pestilence and carnivora. Under such conditions increase of population must be slow. Campaigns against the diseases which dominate the native and kill off his children in infancy await augmentation of the medical staff: in these campaigns the trained native is destined to play an important part. Tsetse fly is as much an evidence of backward civilisation and conditions of life as is the practice of witchcraft or the occurrence of typhus fever: cultivation and civilisation are its certain and deadly enemies. When the importance of the preservation of native lives, adult and infant, is realised, we may hope to witness the gradual disappearance of tsetse fly and many other scourges and must see to it that their place be not taken by other pestilences of alien origin.

Tuberculosis.—271 cases and 50 deaths were reported in 1923 as against 206 cases and 23 deaths in 1922 and 202 cases with 34 deaths in 1921. By Government Notice No. 132, published in the Gazette of 22nd June, 1923, Tuberculosis was declared a notifiable disease.

Asiatics contribute a considerable proportion of the cases, but native cases are reported from all parts of the Territory. At Dar-es-Salaam 4 European cases came under treatment—two being officials, who were invalided: at the Sewa Hadji Hospital 29 cases of Pulmonary infection were admitted; of these, 9 died and 3 were invalided; 16 cases were treated as out-patients. The Senior Medical Officer reports that Pulmonary Tuberculosis is common at Tanga and "a large number of bad cases of Ankylostomiasis become infected." He treated one European and 44 Asiatic and Native cases: of the latter 36 were lung infections. At Arusha, natives of the district have been admitted to the hospital suffering from various manifestations of the disease—10 cases of tubercular glands in the neck, of whom 2 submitted to operation; 1 of tubercular meningitis, verified post-mortem; 1 of general miliary tuberculosis in which the peritoneum and lungs were found to be infected; 2 of pulmonary tuberculosis, of whom 1 died. Seven of the gland infections were in Wameru natives who inhabit the southern slope of Mount Mweru. Tuberculosis accounted for 3 of the 21 deaths in the Arusha Hospital in 1923. Two Europeans suffering from pulmonary tuberculosis also came under treatment at Arusha.

In the adjoining district of Moshi, too, the Medical Officer reports that all varieties of tuberculosis are met with in natives and he has had under treatment cases of tubercular meningitis, spinal disease, hip disease and "cold abscess." The Acting Senior Medical Officer, Tabora, reports 19 cases of Pulmonary Tuberculosis (tubercle bacilli were found in the sputum of fourteen of these), 4 cases of old spinal caries and 6 cases of other forms of Tuberculosis.

At Morogoro 6 native cases of Pulmonary Tuberculosis were admitted to hospital, of these, 5, including 4 convicts, died. A native case of tubercular ulceration of the intestines also died in hospital.

The Medical Officer, Tukuyu, states that, in Rungwe district, the cases in natives usually owe infection to visits to Nyasaland or other parts of this Territory.

At Mikindani, all six cases were labourers from Songea district. Cases were also reported from Singidda, Dodoma, Kondoa-Itangi, Bagamoyo, Kilwa, Bukoba, Mwanza, Kigoma and Iringa.

There are no special institutions or facilities for the treatment of Tuberculous patients, native or other, and it is considered that the state of development of the country does not warrant expenditure in providing them: the outlook for the native infected with Tuberculosis cannot, however, be a bright one. Should it become possible to tackle the leprosy problem seriously, hostels for tubercular natives might be erected in the vicinity of those leper hospitals which are in suitable climates and be under the same management. Our native hospitals are not satisfactory refuges for these cases and the accommodation is required for other cases.

European and Asiatic cases are usually invalided from the Territory.

The Acting Chief Veterinary Officer informs me that tuberculosis of native cattle is of extreme rarity: one such case has, however, been reported from Bukoba district. The number of cattle carcases inspected annually by the Veterinary Department at abattoirs must be a very large one, so that the rarity of bovine tuberculosis may be accepted without hesitation (*see*, however, remarks on Pulmonary Tuberculosis in Ruanda, by S. A. S. Kelkar, at p. 152; I am unable to state the authority for S. A. S. Kelkar's opinion).

Typhus Fever.—No case was reported in 1923: one case in 1922.

Whooping Cough has been prevalent: 41 cases were reported in 1923, 22 in 1922 and 20 in 1921.

Yaws is probably the most important cause of disability and ill-health amongst the natives of the Territory: in some districts it is described as being "practically universal." In 1921, 1,109 cases, in 1922, 3,123, and in 1923, 3,593 cases of Yaws were treated at Government Hospitals and Dispensaries. Tukuyu and the Sewa Hadji Hospital, Dar-es-Salaam, head the list with 422 and 413 cases respectively. These figures, unfortunately, give little idea of the prevalence of the disease and, in parts of the country, a copious eruption of Yaws is so common as to be as little remarked by the natives as was a badly small-pox pitted face in England in the eighteenth century. This stage of the disease causes no great inconvenience in the majority of cases but, apart from the clearly recognised later manifestations of the disease, one cannot doubt that a considerable number of the 12,500 cases of ulcer which attended our hospitals in 1923 owe their origin to Yaws. It is a disease pre-eminently amenable to treatment: the effect of an injection or two of neokharsivan, B.S.P.T. or tartar emetic is usually little short of magical, and the small cost of the two latter remedies brings an organised effort to reduce the scourge to reasonable dimensions within the range of practical politics. Kenya has taken up the matter vigorously.

The disease is discussed at some length on pp. 171-175.

Of Gangosa 11 cases were reported in 1923, not including 12 cases of ulcerative Rhino-Pharyngitis returned by S. A. S. Kelkar amongst natives of the district through which the Boundary Commission travelled and which were probably cases of Gangosa.

No cases of Juxta-articular subcutaneous nodules are reported; these cases do not apply for treatment as the condition causes little or no disability.

VENEREAL DISEASES.

(*a*) *Syphilis.*—716 cases of Primary, 1,638 of Secondary and 253 of Inherited syphilis were reported in 1923, as against 569 Primary, 1,481 Secondary and 74 Inherited in 1922 and 687 Primary, 1,723 Secondary and 39 Inherited in 1921. As in the case of Yaws, these figures give little indication of the extent of the disease. The results obtained by treatment with B.S.P.T. are recounted at pp. 171-175. As mentioned in previous reports, it is a disease of towns and of certain communities amongst which relaxation of old tribal customs has been followed by laxity of morals. The largest number of cases reported is that by the Medical Officer, Bukoba: a copy of his report is appended, pp. 22-23. Mwanza furnishes the second largest return: it is particularly prevalent in the Musoma sub-district and here a campaign has been started in the hope of rendering cases non-infective by neokharsivan and B.S.P.T. injections: the local Sultan has promised his support by urging cases to attend at the hospital. At Negeze, in Shinyanga sub-district of Tabora, a trained native dispenser from Nyasaland was posted at the end of the year to carry out treatment of Yaws and Syphilis with B.S.P.T.

(*b*) *Gonorrhœa.*—1,786 cases in 1923 as against 1,198 in 1922 and 1221 in 1921.

561 of these cases were reported from Bukoba, where numerous examples of the complications and sequelœ were also treated: of 91 cases of stricture of urethra, 35 were treated at Bukoba.

Orchitis and Epididymitis, however, seem to be less common in Bukoba than in some other districts, for only 12 cases were reported. At the Sewa Hadji Hospital, Dar-es-Salaam, and at Tanga, where 76 and 85 cases of these conditions were recorded, filariasis probably plays a part.

In Mwanza district the gonorrhœa is stated to be a mild infection: 111 cases were treated. No case of stricture of the urethra and only 10 of orchitis and epididymitis are recorded.

At Tabora the Acting Senior Medical Officer treated 129 cases of gonorrhœa: 78 cases were examined microscopically and the gonococcus found in 71 of them. The difficulty in persuading natives to attend for treatment after the subsidence of the acute symptoms is well-nigh unsurmountable: education in the advanced schools is necessary.

REPORT ON VENEREAL DISEASES BY G. A. WILLIAMS, B.A. (LOND.), M.R.C.S. (ENG.), L.R.C.P. (LOND.), MEDICAL OFFICER, BUKOBA DISTRICT.

VENEREAL DISEASES.

Gonorrhœa.—This I consider to be far the most serious disease we have to treat, as far as the individual is concerned. We have had an average of about 45 *new cases* a *month*, acute and chronic, and, in addition, large numbers of sufferers from the sequelæ, which are not included in this number. I now speak of the cases with a purulent discharge without the serious complications.

Of these cases, 20 per cent. only were women, which, of course, means that there must be lots of women who do not come. In the female we seldom see complications beyond some cervicitis and endometritis. Twice have we seen cystitis in the female and once only ovaritis and salpingitis. Unfortunately, the female seems to be very little inconvenienced and is consequently free and able to spread infection broadcast. In the male we have had almost all the complications and sequelæ, but, strangely enough, orchitis is not as common as at home.

Ophthalmia, arthritis, cystitis, periurethral abscess, fistula, stricture are common enough. Promiscuous sexual intercourse, incontinuence while infected, prostitution, and pombe-drinking all tend to spread the disease.

There is much faith in the local remedy, which seems to consist of freely drinking a banana decoction, the consequent flushing of the system no doubt does exercise a beneficial effect.

Once the painful micturition stage is over, they usually give up all treatment and resume their old habits, with the result that stricture is a very frequent result.

During the year we have sent out a notice occasionally, pointing out the seriousness of the disease, and also of the sequelæ, with the result that stricture cases have come for treatment earlier than usual. Patients are now coming freely, having heard of the benefit of dilatation.

This year we have dilated strictures under chloroform, to the number of 36, some of them being of quite old standing, often multiple and accompanied by fistula. When able, we dilate without any anæsthetic, but these occasions are rather rare, except after repeated dilatations under an anæsthetic. We have had 7 cases in hospital of *Extravasation of Urine*, and 4 of them are still living and doing well. In 2 of these cases, the patients had to be brought to hospital by the orders of the local authorities, for the friends of the patients often wish to hide these cases, and the patient himself maintains silence, as, locally, there seems to be a certain amount of disgrace associated with the condition, the reason being, as far as I can make out, the consequent impotence. Of these 7 cases, one died almost on arrival in hospital. Of the other two who died, one died of toxæmia, following severe and long-standing cystitis, while the other died of pneumonia, which supervened, after he had done well for 16 days, after operation.

We have always incised very freely, and in every case we have been able to get a catheter through to the bladder, after dilatation, and, in some cases, we have tied a catheter in for a few days. In one case only did we have to perform a supra-pubic puncture.

Syphilis.—As against an attendance of 440 at Bukoba Hospital in 1922, in 1923 we had 640, apart from those treated while on tour, etc. We continue to have good results. We have given over 200 injections—intramuscular and intravenous—of neokharsivan (914), with very great benefit to the patients. We usually inject into the buttocks, and on two occasions only have we had anything like trouble, and in these cases it was confined to a certain amount of local inflammation and pain, lasting 5 or 6 days.

As our supply of 914 is limited, we have to confine the use of the drug to what we consider the most profitable cases, viz. : pregnant women, young married women, men of a working age, and, of course, all the prostitutes we can get hold of ; of the rest, we have to choose those who shew the most distressing symptoms, *e.g.*, perforation of palate, huge sloughing ulcers, etc. So excellent have been the results of Neokharsivan, that the local native has come to regard it as a panacea for all the ills of the flesh.

I find that the name Syphilis (Kaswendi) used locally amongst the natives includes both Syphilis and Yaws, and I think that the estimated incidence of Syphilis at about 80 per cent. must be shared with Yaws, which accounts for, at a rough estimate, perhaps about 15 per cent. of these cases. In some cases I think we have had double infection. Luckily, we have not to make a definite diagnosis, as 914 is equally efficacious for each disease.

Confusion of Yaws with Syphilis.—From repeated conversations with intelligent natives, I have gleaned several items of interest with regard to these diseases. Some of these natives knew of Buba (Yaws) as a separate disease from Kaswendi (Syphilis), and they said they learnt of it from the Germans.

I also learnt that the natives, some of them, distinguish between two kinds of Syphilis, which they call Kaswendi ndogo, and Kaswendi kubwa.

The former, the Lesser Syphilis, they recognise as :—

1. Hereditary

or 2. Connected with sexual intercourse, and they do not seem to know its general infectivity.

The latter, the Greater Syphilis :—

1. Not hereditary.
2. Not necessarily connected with sexual intercourse, *per se*, but very infectious generally, *i.e.*, it is dangerous for anyone with a cut or scratch to go near another infected person.

It seems to me that they have recognised differences between the two diseases, and have called Yaws the Greater Syphilis, on account, perhaps, of the very large scabs one sees.

I have been much struck with the intelligent appreciation and keen observation of some of these natives, in this respect, and I have learnt a good deal from them occasionally.

(b).—EUROPEAN OFFICIALS.

GENERAL REMARKS.

As will be observed from the accompanying tables, the deaths of European Officials numbered 6 in 1923 as in 1922 : three of the six deaths were due to malaria and blackwater fever. Invalidings numbered 13, as against 12 in 1922, malaria and blackwater fever accounting for two only as compared with five in 1922. Under the heading of invalidings are not included those cases in which an official becomes due for leave in the course of or shortly after some serious illness and is allowed to proceed to England when convalescent ; three cases in which officials, who would otherwise have been detained on duty after their leave became due, were allowed to proceed on leave on a medical certificate after a serious illness : these cases are mentioned at p. 24.

Exact statistics concerning the total and average number of officials in the Territory are not available in the Secretariat and, for the whole Territory, only an approximate figure can be given. It was suggested that registers of these details should be maintained by Administrative Officers and, at Headquarters, by the Secretariat. This proposal was not accepted and it was considered that the information concerned the Medical Department only. Instructions have been issued by Secretariat Circular to Administrative Officers and Heads of Departments to furnish the P.M.O. with a quarterly return containing the required information, commencing March 31st, 1924. This may obviate the difficulty which has hitherto been experienced.

It will be seen from the Tables at pp. 28-30 that there was a reduction, on the figures for 1922, in the morbidity amongst European Officials on account of malaria and blackwater fever as compared with the total morbidity, at the three largest stations : the reduction at Tabora was but trifling. As remarked in the Annual Medical Report for 1922, that year was a trying and unhealthy one. The tables show how large a part these preventable diseases play in both European and Asiatic sickness rates. It is to be feared that there is a good deal of slackness about personal prophylaxis. There is nothing of special importance to record in the year under review. Influenza, mostly of a very mild type, was prevalent in many parts of the country : no officials suffered from serious complications.

The deaths of European Officials were due to :—

	1921.	1922.	1923.
Cerebro-spinal Meningitis	0	1	0
Influenza	0	1	0
Malaria	1	1	1
Blackwater Fever	1	1	2
Pyrexia, uncertain origin	0	0	1
Aortic Disease. Angina Pectoris	0	1	0
Cardiac Failure	1	0	0
Appendicitis	0	0	1
Gastro-enteritis	0	1	0
Chronic Nephritis	1	0	0
Carcinoma	0	0	1
	4	6	6

INVALIDINGS.

Medical Boards were held on 18 European Officials: 15 were invalided out of the Territory, one of these (carcinoma) died before embarkation and is not included below. It is not yet possible to state how many of the remainder will return to the service. The causes of invaliding from the Territory in 1921, 1922 and 1923, were :—

	1921.	1922.	1923.
Enteric Fever	0	1	1
Dysentery (Amœbic)	0	0	2
Malaria	2	2	1
Blackwater Fever	1	3	1
Rheumatic Fever	1	0	0
Tuberculosis (pulmonary)	0	1	2
Double Inguinal Hernia	1	0	0
General Debility	2	3	1
Neurasthenia	1	0	4
Psychasthenia	0	1	0
Delusional Insanity	0	0	1
Endarteritis Obliterans	0	1	0
Exophthalmic goitre	0	0	1
Loss of Vision	0	1	0
Gunshot wound	1	0	0
	9	13	14

Three were granted local sick leave: the causes of sickness being :—

Blackwater Fever	1
Hœmorrhage into the Vitreous	1
Synovitis of Knee Joint	1

Three others who, although having completed a tour of service, would have been detained on duty for some further period, were allowed to proceed on home leave on medical certificate: they had suffered from :—

(1) Blackwater Fever.

(2) Enteric Fever.

(3) Bacillary Dysentery and Tick Fever.

TABLE I.

EUROPEAN OFFICIALS.—TABLE SHOWING THE SICK, INVALIDING AND DEATH RATES, 1923, BY DISTRICTS.

	Arusha.	Bagamoyo.	Bukoba.	Dar-es-Salaam.	Dodoma.	Iringa.	Kigoma (Ujiji).	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto (Usambara).
Total number of Officials Resident	35	8	19	349	47	12	32	6	9	16	6
Average number Resident	17·5	3·6	14	229	24·56	9	15·16	4	4·5	16	6
Total number on Sick List	7	1	4	280	87	1	18	5	1	10	3
Total number of days on Sick List	120	3	21	1,969	212	4	106	46	2	77	14
Average daily number on Sick List	0·33	0·008	0·06	5·39	0·58	0·011	0·29	0·126	0·005	0·21	0·038
Percentage of Sick to average number Resident	1·89	0·22	—	2·35	2·36	0·12	1·91	3·15	0·11	1·31	0·63
Average number of days on Sick List for each Patient.	17·14	3	5·25	7·03	2·44	4	5·89	9·2	0·2	7·7	4·66
Average Sick Time to each Resident	6·86	0·83	1·5	8·60	8·63	0·44	6·99	11·5	0·44	4·81	2·33
Total number Invalided	1	—	—	7	1	—	1	—	—	1	—
Percentage of Invalidings to total Residents ..	2·86	—	—	2·01	2·13	—	3·12	—	—	6·25	—
Total Deaths	—	—	—	1	2	—	1	—	—	—	—
Percentage of Deaths to total Residents ..	—	—	—	0·29	4·26	—	3·12	—	—	—	—
Percentage of Deaths to average number Resident	—	—	—	0·44	8·14	—	6·59	—	—	—	—
Number of cases of Sickness contracted away from Residence.	4	—	—	—	—	1	2	—	—	1	—

TABLE I.—*continued.*

EUROPEAN OFFICIALS.—TABLE SHOWING THE SICK, INVALIDING AND DEATH RATES, 1923, BY DISTRICTS.—*continued.*

	Morogoro.	Moshi.	Mwanza.	Namanyere (Ufipa).	Pangani.	Songea.	Tabora.	Tanga.	Tukuyu (Rungwe).	Utete (Rufiji).	Whole Territory.
Total number of Officials Resident	44	28	26	4	6	20	78	138	11	13	800 F
Average number Resident	25	18	23	3·6	4	9·7	47	51·14	9	7	600 F
Total number on Sick List	20	7	17	9	2	2	32	44	20	4	543
Total number of days on Sick List	102	60	179	26	4	25	265	221	69	10	3,535 G
Average daily number on Sick List	0·28	0·16	0·40	0·07	0·01	0·07	0·72	0·605	0·19	0·02	9·68 G
Percentage of Sick to average number Resident	1·12	0·89	2·13	1·94	0·25	0·72	1·53	1·18	2·11	0·28	1·61
Average number of days on Sick List for each Patient.	5·1	8·57	10·53	2·88	2	12·5	8·28	5·02	3·45	2·5	6·51
Average Sick Time to each Resident	4·08	3·33	7·78	7·22	1	2·57	5·64	4·32	7·66	1·44	5·89
Total number Invalided	1	—	—	—	—	—	—	1	—	1	14
Percentage of Invalidings to total Residents ..	2·27	—	—	—	—	—	—	0·72	—	7·69	1·75
Total Deaths	—	1	—	—	—	—	1	—	—	—	6
Percentage of Deaths to total Residents ..	—	3·57	—	—	—	—	1·28	—	—	—	0·75
Percentage of Deaths to average number Resident	—	5·55	—	—	—	—	2·13	—	—	—	1·00
Number of cases of Sickness contracted away from Residence.	1	4	—	—	—	—	3	—	—	—	16

F.—Approximately; accurate figures not available.
G.—From 21 Stations shewn on this and page 25.
NOTE.—Returns from Mahenge not available for 1923.

TABLE II.

SICK, INVALIDING AND DEATH RATES, EUROPEAN OFFICIALS, 1921, 1922 AND 1923.

	Dar-es-Salaam.			Tabora.			Tanga.			Whole Territory.		
	1921	1922	1923	1921	1922	1923	1921	1922	1923	1921	1922	1923
1. Total number of Officials Resident	300	418	349	55	86	78	—C	94	138	559B	836D	800F
2. Average number Resident ..	252	260	229	55	56	47	—C	56	51·14	538B	656D	600F
3. Total number on Sick List ..	274	327	280	36A	87	32	23	42	44	440A	618E	543
4. Total number of days on Sick List	2,179	2,115	1,969	307A	449	265	296	260	221	3,859A	4,245E	3,535G
5. Average daily number on Sick List	5·97	5·79	5·39	0·84A	1·23	0·72	0·81	0·71	0·605	10·57A	11·63	9.68G
6. Percentage of Sick to average number Resident.	2·37	2·23	2·35	1·53A	2·20	1·53	—	1·27	1·18	1·96	1·77	1·61
7. Average number of days on Sick List for each Patient.	7·95	6·47	7·03	8·53A	5·16	8·28	12·87	6·19	5·02	8·77	6·87	6·51
8. Average Sick Time to each Resident	8·65	8·13	8·60	5·58A	8·02	5·64	—	4·64	4·32	7·17	6·47	5·89
9. Total number Invalided	2	6	7	—	1	—	—	—	1	9	13D	14
10. Percentage of Invalidings to total Residents.	0·66	1·44	2·01	—	1·16	—	—	—	0·72	1·6	1·56	1·75
11. Total Deaths	3	4	1	1	—	1	1	—	—	5	6D	6
12. Percentage of Deaths to total Residents.	1·0	0·96	0·29	1·82	—	1·28	—	—	—	0·89	0·72	0·75
13. Percentage of Deaths to average number Resident.	1·19	1·54	0·44	1·82	—	2·13	—	—	—	0·93	0·91	1·00
14. Number of Cases of Sickness contracted away from Station.	—	—	—	1	—	3	—	—	—	—	—	16

A.—Figures for 1921 taken from Annual Medical Report, 1921, with some amendments (A).

B.—From 14 Stations shewn in Report 1921. Census 1921 gives 621 European Officials on 24/4/1921.

C.—Figures not available, the Census 1921 shews 59 European Officials at Tanga; the answers to Questions 6, 8 and 13, calculated on this figure would be 1·37, 5·02 and 1·69 respectively.

D.—For whole Territory: compiled from staff records.

E.—From 17 Stations for which returns are available, viz.:—Dar-es-Salaam, Dodoma, Tanga, Tabora, Iringa, Mikindani, Lindi, Kilwa, Bukoba, Utete, Kilossa, Pangani, Arusha, Songea, Mwanza, Tukuyu, Bagamoyo; the answers to Questions 5 to 8 are calculated from these figures, the answers to remaining Questions are calculated on number of Officials Resident in whole Territory (*i.e.*, answers to Questions 1 and 2).

F.—Approximately; accurate figures not available.

G.—From 21 Stations shewn on Table I. on pages 25–26.

TABLE III.

"SHOWING MORBIDITY RATES FOR MALARIA AND BLACKWATER FEVER AMONGST OFFICIALS," DAR-ES-SALAAM.

	EUROPEAN OFFICIALS.									ASIATIC OFFICIALS.								
	Total days off duty.			Days off duty for Malaria.			Days off duty for B.W. Fever.			Total days off duty.			Days off duty for Malaria.			Days off duty for B.W. Fever.		
	1921	1922	1923	1921	1922	1923	1921	1922	1923	1921	1922	1923	1921	1922	1923	1921	1922	1923
January ..	241	178	156	86	40	90	—	—	—	165	330	269	45	184	138	—	—	—
February ..	140	180	96	80	19	18	—	—	—	69	315	344	31	92	114	—	10	—
March ..	137	241	247	36	82	31	—	12	—	—	375	274	—	138	94	—	15	—
April ..	137	152	214	56	71	10	—	—	—	59	244	208	28	93	51	17	—	—
May ..	219	218	229	46	92	107	—	1	29	66	316	453	31	203	287	—	—	—
June ..	268	266	192	155	90	105	10	—	17	54	398	335	43	228	273	—	7	—
July ..	132	237	151	74	75	57	—	32	—	174	311	337	126	176	154	—	10	70
August ..	113	102	95	47	18	9	—	19	—	202	213	238	96	94	95	17	—	29
September	230	107	89	107	42	27	—	—	—	210	158	166	97	47	56	—	—	—
October ..	117	123	236	11	18	20	—	—	—	228	175	182	97	57	65	—	—	—
November..	121	203	197	19	60	6	18	42	—	272	231	168	122	83	50	—	7	—
December ..	109	108	146	13	40	29	13	18	—	377	279	339	251	128	129	7	—	—
TOTAL ..	1,964	2,115	2,048	730	647	509	41	124	46	1,876	3,345	3,313	967	1,523	1,506	41	49	99

Percentage of days off duty for Malaria and Blackwater Fever
to total days off duty 1921 .. .. 39·26
Do. do. 1922 .. .. 36·45
Do. do. 1923 .. .. 27·10

Returns for Europeans incomplete from Sewa Hadji Hospital for 1921 and 1922.

Percentage of days off duty for Malaria and Blackwater
Fever to total days off duty 1921 .. .. .. 53·73
Do. do. 1922 .. .. .. 47·02
Do. do. 1923 .. .. .. 48·45

For 1921 no returns are available from the Sewa Hadji Hospital for the first six months of the year for Asiatics and none for Europeans for any part of the year.

TABLE IV.

“SHOWING MORBIDITY RATES FOR MALARIA AND BLACKWATER FEVER AMONGST OFFICIALS,” TANGA.

	European Officials.									Asiatic Officials.								
	Total days off duty.			Days off duty for Malaria.			Days off duty for B.W. Fever.			Total days off duty.			Days off duty for Malaria.			Days off duty for B.W. Fever.		
	1921	1922	1923	1921	1922	1923	1921	1922	1923	1921	1922	1923	1921	1922	1923	1921	1922	1923
January	13	27	7	5	—	—	—	—	—	139	56	98	18	51	76	—	—	—
February ..	29	24	21	2	16	—	—	—	—	181	124	95	23	65	54	15	—	—
March	96	24	35	5	20	—	—	—	—	189	200	175	18	55	84	39	—	—
April	57	18	5	13	3	2	—	—	—	141	123	78	43	57	45	36	—	—
May	24	45	25	10	32	13	—	—	—	144	181	130	23	105	96	13	—	—
June	9	16	40	6	16	32	—	—	—	74	122	174	48	56	92	—	—	—
July	23	32	19	14	21	13	—	—	—	107	194	185	47	132	129	—	—	—
August	4	20	6	4	15	3	—	—	—	58	148	99	19	66	61	—	—	—
September ..	18	32	15	—	9	2	19	—	—	85	93	123	9	39	44	—	—	—
October	9	9	20	9	4	13	—	—	—	50	91	101	16	40	40	—	—	—
November ..	—	3	7	—	1	1	—	—	—	44	84	113	8	35	12	—	—	—
December ..	14	10	20	11	3	10	3	—	—	26	142	91	—	66	11	—	—	—
TOTAL ..	296	260	220	79	140	89	22	—	—	1,238	1,558	1,462	272	767	744	103	—	—

Percentage of days off duty for Malaria and Blackwater Fever
to total days off duty 1921 .. .. 34·12
Do. do. 1922 .. .. 53.85
Do. do. 1923 .. .. 40·45

Percentage of days off duty for Malaria and Blackwater Fever to total days off duty 1921 .. 30·29
Do. do. 1922 .. 49·23
Do. do. 1923 .. 50·89

TABLE V.

"SHOWING MORBIDITY RATES FOR MALARIA AND BLACKWATER FEVER AMONGST OFFICIALS," TABORA.

	EUROPEAN OFFICIALS.									ASIATIC OFFICIALS.								
	Total days off duty.			Days off duty for Malaria.			Days off duty for B.W. Fever.			Total days off duty.			Days off duty for Malaria.			Days off duty for B.W. Fever.		
	1921	1922	1923	1921	1922	1923	1921	1922	1923	1921	1922	1923	1921	1922	1923	1921	1922	1923
January ..	20	32	52	—	11	1	—	—	—	68	115	211	24	103	107	—	—	—
February ..	40	10	19	—	9	3	—	—	—	67	187	191	47	146	93	—	—	—
March	17	21	13	—	11	3	—	—	—	221	231	182	104	149	66	—	—	—
April	77	39	46	—	9	13	—	—	8	90	210	277	35	120	142	—	—	—
May	17	73	90	6	63	24	—	—	33	86	289	193	46	182	82	—	9	—
June	2	51	32	—	42	32	1	—	—	128	247	273	33	158	134	—	19	—
July	26	30	36	—	12	32	22	—	—	17	167	367	8	140	169	—	—	—
August ..	13	28	31	—	16	28	—	—	—	43	88	208	—	77	132	—	—	—
September ..	58	26	45	33	6	1	—	—	—	126	87	274	44	63	90	—	—	—
October ..	10	41	25	8	11	11	—	—	—	102	15	111	47	6	33	—	—	—
November ..	21	74	15	16	7	6	—	—	—	97	164	115	26	96	36	—	—	—
December ..	6	24	20	5	13	—	—	—	—	117	131	73	79	51	31	—	—	—
TOTAL ..	307	449	424	68	210	154	23	—	41	1,162	1,931	2,475	493	1,291	1,115	—	28	—

Percentage of days off duty for Malaria and Blackwater Fever
to total days off duty 1921 .. .. 29·64
Do. do. 1922 .. .. 46·77
Do. do. 1923 .. .. 46·00

Percentage of days off duty for Malaria and Blackwater Fever to total days off duty 1921 .. 42·43
Do. do. 1922 .. 66·86
Do. do. 1923 .. 45·05

(c)—ASIATIC OFFICIALS.

General Remarks.

There were nine deaths amongst Asiatic Officials in 1923, as in the two preceding years. On the recommendation of medical boards, nine were invalided to India, as against 6 and 5 in the two preceding years. The causes of death and invaliding are shewn in the tables below.

Malaria and Blackwater Fever contribute very largely to the sickness rates of Asiatic Officials. Medical Officers report that they are neglectful of precautionary measures, especially in the taking of quinine. Even when suffering from an attack of Malaria, there is great reluctance to taking quinine by mouth and a preference for quinine injections is shewn. There is little doubt that very inadequate courses of quinine treatment after an attack are the rule rather than the exception.

Seven Asiatic Officials suffered from Blackwater Fever: one, a Sub-Assistant Surgeon, died; the rest recovered. Two of these were resident in Dar-es-Salaam, two in Tabora, one in Lindi, one in Kilwa, and one fell sick at Kilosa, while on transfer from Mahenge to Tabora: in the returns this case is shewn under Mahenge.

Causes of Death amongst Asiatic Officials:—

	1921.	1922.	1923.
Enteric Fever	1	0	0
Malaria	0	3	1
Blackwater Fever	3	1	1
Plague	1	1	0
Pneumonia	2	2	1
Septicœmia	0	0	1
Small-pox	0	0	1
Tuberculosis	0	0	2
Cerebral Hœmorrhage	0	1	0
Heart Failure	2	0	0
Fatty Degeneration of Heart	0	0	1
Nephritis	0	1	0
Alcoholism (acute)	0	0	1
	9	9	9

Causes of Invaliding from the Territory:—

	1921.	1922.	1923.
Malaria	0	2	0
Blackwater Fever	2	0	0
Tuberculosis	1	1	4
Pernicious Anæmia	0	0	1
Diabetes	0	2	0
Chronic Rheumatism	1	0	0
Hemiplegia	0	0	1
Paralysis	0	1	0
Neurasthenia	0	0	2
Loss of Vision	1	0	0
Chronic Bronchitis	0	0	1
	5	6	9

TABLE VI.

ASIATIC OFFICIALS.—TABLE SHOWING THE SICK, INVALIDING AND DEATH RATES, 1923, BY DISTRICTS.

	Arusha.	Bagamoyo.	Bukoba.	Dar-es-Salaam.	Dodoma.	Iringa.	Kigoma (Ujiji).	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto (Usambara).
Total number of Officials Resident	6	14	14	598	74	4	28	11	—	22	5
Average number Resident	5·2	8	9	472	38·5	3	21·53	9	—	16·17	5
Total number on Sick List	2	6	6	1,040	168	—	72	16	—	21	4
Total number of days on Sick List	8	67	59	3,167	609	—	339	62	—	133	15
Average daily number on Sick List	0·022	0·18	0·16	8·68	1·67	—	0·93	0·17	—	0·36	0·04
Percentage of Sick to average number Resident	0·42	2·25	1·77	1·84	4·34	—	4·32	1·88	—	2·23	0·8
Average number of days on Sick List for each Patient.	4	11·16	9·83	3·05	3·62	—	4·71	3·88	—	6·33	3·77
Average Sick Time to each Resident	1·54	8·37	6·55	6·71	15·82	—	15·74	6·88	—	8·23	3·00
Total number Invalided	—	—	—	4	—	—	—	—	—	—	—
Percentage of Invalidings to total Residents ..	—	—	—	0·67	—	—	—	—	—	—	—
Total Deaths	—	—	—	1	—	—	1	1	—	—	—
Percentage of Deaths to total Residents ..	—	—	—	0·17	—	—	3·57	9·09	—	—	—
Percentage of Deaths to average number Resident	—	—	—	0·21	—	—	4·64	11·11	—	—	—
Number of cases of Sickness contracted away from Residence.	—	—	—	—	—	—	2	—	—	—	—

TABLE VI.—*continued.*

ASIATIC OFFICIALS.—TABLE SHOWING THE SICK, INVALIDING AND DEATH RATES, 1923, BY DISTRICTS.—*continued.*

	Morogoro.	Moshi.	Mwanza.	Namanyere (Ufipa).	Pangani.	Songea.	Tabora.	Tanga.	Tukuyu (Rungwe).	Utete (Rufiji).	Whole Territory.
Total number of Officials Resident	46	32	16	—	10	2	153	115	4	14	1,000*
Average number Resident	27	23	15	—	6	2	116	90·14	3	7	877·5*
Total number on Sick List	49	52	14	—	4	2	112	229	5	5	1,807
Total number of days on Sick List	216	175	139	—	16	16	1,638	1,465	22	44	8,190
Average daily number on Sick List	0·59	0·48	0·38	—	0·04	0·04	4·49	4·01	0·06	0·12	22·44
Percentage of Sick to average number Resident	2·19	2·08	2·53	—	0·66	2	3·9	4·45	2	1·7	2·55
Average number of days on Sick List for each Patient.	4·40	3·36	9·93	—	4	8	14·6	6·35	4·5	8·8	4·53
Average Sick Time to each Resident	8	—	9·27	—	2·66	8	14	12·74	7·3	6·3	9·33
Total number Invalided	—	—	1	—	—	—	2	2	—	—	9
Percentage of Invalidings to total Residents ..	—	—	6·25	—	—	—	1·7	1·74	—	—	0.9
Total Deaths	—	—	—	—	—	—	2	2	—	2	9
Percentage of Deaths to total Residents ..	—	—	—	—	—	—	1·30	1·74	—	14·28	0·9
Percentage of Deaths to average number Resident	—	—	—	—	—	—	1·72	2·22	—	28·57	1·02
Number of cases of Sickness contracted away from Residence.	—	—	—	—	—	—	—	—	—	—	—

* Approximately; accurate figures not available.
NOTE.—Returns from Mahenge not available for 1923.

TABLE VII.

SICK, INVALIDING AND DEATH RATES, ASIATIC OFFICIALS, 1921, 1922 AND 1923.

	Dar-es-Salaam.			Tabora.			Tanga.			Whole Territory.		
	1921B	1922	1923	1921	1922	1923	1921	1922	1923	1921	1922	1923H
1. Total number of Officials Resident	509	463C	598	190	113C	153	—	197C	115	796D	756E	1,000G
2. Average number Resident ..	425	347C	472	172	85C	116	—	148C	90·14	645D	664E	877·5G
3. Total number on Sick List ..	188	983	1,040	201A	473	112	99	265	229	570A	1,898E	1,807
4. Total number of days on Sick List	1,231	3,345	3,167	1,162A	1,931	1,638	1,238A	1,558	1,465	4,083A	7,565E	8,190
5. Average daily number on Sick List	3·4	9·1	8·68	3·2A	5·3	4·49	3·4	4·3	4·01	11·2A	20·7	22·44
6. Percentage of Sick to average number Resident.	0·8A	2·8	1·84	1·9A	4·0	3·9	—	5·3	4·45	1·7A	3·1	2·55
7. Average number of days on Sick List for each Patient.	6·5	3·4	3·05	5·8A	4·0	14·6	12·5A	5·9	6·35	7·2A	3·9	4·53
8. Average Sick Time to each Resident	2·9	9·6	6·71	6·8A	14·4	14	—	19·5	12·74	6·3A	11·4	9·33
9. Total number Invalided	1	2	4	—	—	2	—	1	2	5	6	9
10. Percentage of Invalidings to total Residents.	0·19	0·4	0·67	—	—	1·7	—	0·5	1·74	0·6	0·6F	0·9
11. Total Deaths	1	1	1	—	1	2	—	2	2	9	9	9
12. Percentage of Deaths to total Residents.	0·2	0·2	0·17	—	0·9	1·30	—	1·0	1·74	1·1	0·8F	0·9
13. Percentage of Deaths to average number Resident.	0·2	0·3	0·21	—	1·2	1·72	—	1·3	2·22	1·4	1·1F	1·02
14. Number of Cases of Sickness contracted away from Residence.	—	—	—	—	—	—	—	—	—	—	—	—

A.—Figures for 1921 from Annual Medical Report, 1921, amended (A) where necessary information is available.

B.—The *sickness* returns for 1921 refer only to cases treated at the European Hospital, whereas the numbers resident refer to the total Asiatic population. For the two Hospitals at Dar-es-Salaam combined, the answer to question 4, for the six months, July–December, 1921, is 1,463 days, figures for the first six months of the year are not available from the Sewa Hadji Hospital. The figures for 1922 refer to both Hospitals.

C.—From 1921 Census. Total resident estimated by adding 33⅓ per cent. Approximately only.

D.—For 11 Stations shewn in Table "C," Annual Medical Report, 1921. Tanga is not included.

E.—From 15 Stations from which returns received, viz.:—Dar-es-Salaam, Tabora, Mwanza, Kilwa, Bukoba, Utete, Kilossa, Pangani, Dodoma, Iringa, Tanga, Mikindani, Lindi, Tukuyu and Bagamoyo.

F.—Calculated on 1921 Census—804 Asiatic Officials: total resident estimated by adding 33⅓ per cent.

G.—Approximately; accurate figures not available.

H.—Returns from Mahenge not available for 1923.

REPORT OF THE HEALTH OF THE KING'S AFRICAN RIFLES.

In the third quarter of the year the 2/1 Battalion of the King's African Rifles was disbanded and the strength of the King's African Rifles thus reduced to two Battalions. This led to a general reorganisation of the distribution of the troops. The 6th King's African Rifles, with headquarters at Dar-es-Salaam, now supplies garrisons to Arusha, Songea and Mahenge, and the 2nd King's African Rifles, headquarters at Tabora, furnishes garrisons to Mwanza, Iringa and Massoko. Some of the personnel of the disbanded Battalions were absorbed into the other Battalions and, owing to numerous changes, a clear presentment of the health of the various garrisons can hardly be supplied. Several Medical Officers, moreover, have assumed that no separate report on the King's African Rifles garrison of their station was required this year, for it is not mentioned in the new Model Medical Report. The information presented is therefore less complete than was the case last year and would have been still more so but for information kindly supplied by the Officers Commanding of the 6th and 2nd Battalions.

One British Officer, who had suffered from a mild attack of Blackwater Fever in Kigoma in 1922, died nine months later in Zanzibar of a second attack of the disease while serving with the garrison furnished by the 2nd K.A.R.

Three British Officers and Non-Commissioned Officers were invalided to England on account of—

(i) Cerebral Malaria.
(ii) Blackwater Fever; contracted in 1922.
(iii) Tuberculosis.

All these were serving at Dar-es-Salaam with the 6th K.A.R.

Average number of British Officers and Non-Commissioned Officers of all Battalions resident in 1923 was	68
Death	1
Percentage of Deaths to average number resident	1.47
Invalided	3
Percentage of Invalidings to average number resident	4.41

2ND BATTALION, KING'S AFRICAN RIFLES.

The Battalion took over two new stations (Iringa and Massoko) in July and August respectively and the garrison hitherto furnished by this Battalion to Zanzibar was withdrawn in June.

HEADQUARTERS, TABORA.

Average strength Native ranks during 1923	285.25
Average number reporting sick daily	23.9 *i.e.* 8.38 %
Deaths	0
Invaliding	1

The invaliding was necessitated by Peripheral Neuritis. 563 cases, as against 317 in 1922, were admitted to hospital: they were suffering from:—

Chicken-pox	16	Gastritis	2
Dysentery (Amœbic)	6	Diarrhœa	25
Enteric Fever	1	Constipation	1
Gonorrhœa	34	Colic	2
Influenza	135	Inflammation Lymphatic Gland...	9
Malaria (Aestivo-autumnal) ...	12	Lymphangitis	1
Relapsing (Tick) Fever	2	Soft Chancre	2
Rheumatic Fever	3	Sinus of Scrotum	1
Septicæmia	1	Orchitis	2
Syphilis (Primary)	3	Balanitis	1
,, (Secondary)	2	Periostitis	2
,, (Inherited)	3	Cellulitis	1

Carried forward ...

		Brought forward	
Yaws	1	Abscess	10
Mumps	3	Synovitis	26
Anæmia	1	Myalgia	22
Scurvy	1	Whitlow	1
Neuritis (Peripheral)	1	Boil	3
,, (Simple)	1	Psoriasis	1
Epilepsy (Jacksonian)	1	Ulcer	6
Neuralgia	1	Dermatitis	1
Sciatica	1	Injuries (Local)	21
Conjunctivitis	44	Gunshot Wound, Neck	1
Keratitis	1	Fracture	2
Inflammation of Middle Ear	3	Sebaceous Cyst	1
Pleurisy	4	Snake bite	2
Stomatitis	1	Schistosoma Hæmatobium	1
Inflammation of Tonsils	132	Filaria Bancrofti	1
		Total	563

It will be observed that 135 cases of Influenza and 132 of mild Tonsilitis were admitted to hospital and the cases of these two diseases account for the large increase in the number of admissions to hospital in 1923.

The case of Jacksonian Epilepsy was the result of a gunshot wound sustained in the Great War. The case of Schistosomiasis was a recent arrival from Nyasaland.

MWANZA GARRISON.

Average strength of Native Ranks during 1923	128.5
Average number of Native Ranks reported sick daily	11.41 *i.e.* 8.88 %
Number of admissions to hospital	63
Deaths	0

IRINGA GARRISON.

Average strength of Native Ranks during 1923	131
Average number of Native Ranks reporting sick daily	4.73 *i.e.* 3.61 %
Deaths	2 (Murder and Suicide).

MASSOKO GARRISON.

Average strength of Native Ranks during 1923	67
Average number of Native Ranks reporting sick daily	8.5 *i.e.* 12.69 %
Number of admissions to hospital (5 months)	19
Deaths	0

6TH BATTALION KING'S AFRICAN RIFLES.

I. HEADQUARTERS SECTION. EXTRACT FROM REPORT BY J. M. SEMPLE, M.B., B. CH. (DUBL.), B.A.O.

1. *General Health.*—The health of the garrison at headquarters (Dar-es-Salaam) in general has been good, but Malaria continues to account for by far the greatest number of sick.

2. *British Officers and Non-Commissioned Officers.*—The general health has been good, except for Malaria which, although only accounting for an average of 5.75 days on the Sick List for each officer, accounts for 56.5 % of the total sickness. The following table shows the figures for all diseases, and for Malaria and Blackwater Fever alone:—

	All diseases.	Malaria and B.W.F. only.
Total officers resident	36	36
Average officers resident	16.08	16.08
Total on Sick List	17	12
Total days on Sick List	122	69
Average number daily on Sick List	0.33	0.19
% of Sick to average No. resident ...	2.05	1.18
Average No. days on sick list for each patient	7.18	5.75
Average sick time for each resident	7.63	4.29
Total number invalided	3	2
% of Invalided to total residents ...	8.33	5.6
% of Invalided to average No. resident	18.66	12.44
Total of Deaths	Nil.	
Cases contracted away from residence	,,	

The invalidings were necessitated by (I) Cerebral Malaria.

(II) Tuberculosis.

(III) B.W. Fever: contracted in 1922.

3. *Other Ranks.*—The diseases which accounted for the greatest number of Sick were, in order of precedence:—

Malaria	30 %
Disorders of Digestion	14.4 %
Respiratory Diseases	13.1 %
Venereal	7.7 %
Ulcers	5.7 %

The total number of diseases treated during the period was 871.

Deaths 3

The deaths were due to:—

(i) Cerebro-spinal Meningitis.
(ii) Lobar Pneumonia.
(iii) Pyrexia of uncertain origin. The patient was admitted with high fever: microfilariæ were found in his blood. He died soon after admission, and no other signs or symptoms were discovered. No post-mortem could be obtained.

Invalided.

Leprosy	1
Chronic Bronchitis	2
General Debility	2
	5

4. *General.*—Malaria still bears about the same ratio to other diseases for this period as it did for the year 1922. Return of the more important diseases, affecting the native ranks of the K.A.R. and treated in the Sewa Hadji Hospital during the year 1923:—

Malaria	261
Digestive Diseases	115
Respiratory Diseases	114
Gonorrhœa	56
Conjunctivitis	41
Ulcers	50

Abscesses	26
Rheumatism and Lumbago	25
Pyrexia of unknown origin (?Malaria)	21
Filariasis	7
Soft sores (venereal)	5
Spirillum Tick Fever	5
Bilharziasis	1
Leprosy	1
Local Injuries	30

II. ARUSHA GARRISON 6th KING'S AFRICAN RIFLES.

Report by C. F. Shelton, M.D. (Lond.), Medical Officer, Arusha.

Average strength during the year	190
Average daily number on Sick List	4.7 = 2.47 % of strength.

Chief admissions to Hospital were for :—

Dysentery (Amœbic)	12	Conjunctivitis	9
Gonorrhœa	24	Liver Abscess	1
Influenza	8	Acute Intestinal Obstruction ...	1
Malaria	10	Bronchitis	6
Lobar Pneumonia	2	Pleurisy	1
Relapsing Fever	2	Epididymitis (Gonorrhœal) ...	4
Syphilis (Primary)	1	Orchitis	3
Syphilis (Secondary)	2	Soft Chancre	1
Small-pox	1	Ankylostomiasis	1
Local Injury	25		

Two askari invalided during the year—for defective eyesight and amœbic abscesses of the liver respectively. Two deaths occurred—one (in Hospital)—after operation for acute intestinal obstruction. The other case was one of sudden death in the lines. Deceased collapsed suddenly while walking out of the latrines. At post-mortem examination the heart was found to be small and under average weight and the heart muscle flabby and fatty : no other abnormality found. A careful investigation of all the attendant circumstances showed no evidence of the man's food having been tampered with.

Change of companies took place early in March.

The amount of venereal disease has been excessive this year (35 admissions) : the great majority of these being from the incoming company, many of whom came from Zanzibar without their wives. Otherwise the health of the detachments has been satisfactory.

The sanitation of the lines is very good.

REPORT OF THE HEALTH OF THE NATIVE POLICE AND WARDERS.

Strength of the Force (African ranks)	2,107
Deaths in 1923	9
Death rate	4.27 per 1,000.

The distribution of the force and the causes of death at each station were as follows :—

Stations.	Strength.	Deaths and Cause of Death.
Depot (Morogoro)	131	
Arusha	73	
Bagamoyo	46	1. Cause unknown, died at Kidugalo.
Namanyere	69	
Bukoba	129	1. Pneumonia.
Dar-es-Salaam	149	1. Syncope. This man fell down dead whilst running to assist in suppressing a fire. A post-mortem examination revealed no pathological conditions.
Dodoma	96	

Iringa	69	
Kilwa	68	1. Pneumonia.
Kondoa Irangi	73	
Tukuyu	81	1. Pneumonia following Influenza.
Lindi	163	1. Tuberculosis.
Mahenge	65	
Morogoro	115	1. Pneumonia.
Moshi	59	
Mwanza	132	
Pangani	50	
Utete	44	
Songea	57	1. Urœmia.
Tabora	168	
Tanga	90	1. Pneumonia
Ujiji	105	
Lushoto	49	
Mafia	26	
Total ...	2,107	Deaths 9

The health of the African ranks has been good. The mortality shews a reduction of 2.53 per thousand on that for 1922.

Venereal disease is still the cause of much of the time lost from sickness: at Kigoma, for instance, the Medical Officer reports that of the 560 days spent in hospital by Police and Warders in 1923, 427 were on account of Venereal diseases.

But few reports on the health of the Police for 1923 have been submitted by Medical Officers and for most of this information I am indebted to the Commissioner of Police and Prisons.

(*d*)—GENERAL EUROPEAN POPULATION.

Apart from Influenza, which has been present in a mild form during most of the year, there has been no unusual sickness or mortality. The Registrar-General has kindly supplied a return of the registered deaths, of which a summary follows:—

Dysentery	2	Cerebral Thrombosis	1
Enteric Fever	1	Chronic bronchitis	1
Influenza	2	Chronic Fibrosis of lungs	1
Malaria	3	Broncho-pneumonia (infant) ...	1
Blackwater Fever	3	Chronic Dyspepsia	1
Pneumonia	1	Intestinal Obstruction	2
Hyperpyrexia (infant)	1	Dropsy	1
Inanition and Prematurity (infants)	2	Gunshot wound	1
Diabetes, Gangrene	1		

The deaths from Blackwater Fever occurred at Dar-es-Salaam (patient transferred from Morogoro). Morogoro and Tanga: those from Malaria at Dar-es-Salaam (patient removed from a coastal steamer on which he was an officer), Masasi (Lindi District) and Mahenge: those from Dysentery at Morogoro and Dar-es-Salaam and that from Enteric Fever at Masasi (Lindi District).

By the Government Medical Staff only 19 deaths amongst the European General population were reported: several of the remainder were of the South African Dutch population at Arusha, who, the Medical Officer remarks, do not always consult a doctor even in serious illness.

There has not been a census since 1921, when the General European population was 1826: it is now probably slightly greater.

The births of 35 European children and the deaths of four European infants under one year were registered in 1923: giving an infantile mortality rate of 114.29 per thousand.

The information available is not sufficiently detailed to enable a table of Sick, Invaliding and Death Rates to be compiled.

(*e*)—GENERAL NATIVE POPULATION.

At the census in 1921 the native population of the Territory was estimated to be 4,107,000: registration of births and deaths is not compulsory and no reliable statement of the population in 1923 can be made.

The Infantile Mortality is unknown. The Senior Commissioner, Tabora, Mr. H. C. Stiebel, O.B.E., has taken great interest in this question as regards his district and obtained returns for certain Sultanates in 1922. These shewed 9,768 births and 5,078 deaths under 1 year of age, an Infantile Mortality of 519.9 per 1,000. The Medical Officer, Bukoba, reports 5,085 births and 2,976 deaths in a selected part of the district; the Infantile Mortality for Bukoba thus amounts to 585.2 per 1,000. At Tanga, on the other hand, the figures obtained by the Medical Officer of Health yielded an Infantile Mortality rate of 91 per 1,000 (*see* report of the Senior Sanitation Officer, page 100). It must be conceded that but little reliance can be placed on these estimates. The Infantile Mortality is certainly high: further investigation should be made into the subject.

LEGAL.

Enactments and Regulations of special Sanitary Interest are recorded by the Senior Sanitation Officer at p. 99.

The Mandate for the Tanganyika Territory was published in the Gazette of 12-1-1923. It provides, *inter alia*, that the Mandatory shall promote to the utmost the material and moral well-being and the social progress of the inhabitants, shall apply to the Territory international conventions respecting the traffic in drugs and shall co-operate in the execution of any common policy adopted by the League of Nations for preventing and combating disease.

Destitute persons: Ordinance No. 1 of 1923 makes provision for the control of destitute persons.

Medical Practitioners and Dentists are specifically exempted from the provisions of the Trades Licensing Ordinance No. 10 of 1923: they are also exempted from the payment of the profits tax imposed on businesses by the Profits Tax Ordinance, No. 8 of 1923.

By Government Notice No. 84 of 1923 the importation of "Opium" by post (excepting Parcels Post) was prohibited. This notice also requires that opium imported shall be in the form of a recognised medical preparation and that the nature of the contents shall be endorsed on the outside of the package.

The Intoxicating Liquor Ordinance No. 24 of 1923 controls the manufacture, sale and supply of intoxicating liquor: it came into force on 27th July, 1923.

The Master and Native Servants Ordinance, No. 32 of 1923 provides for the housing and supply of food and medical attendance to native employees. It is to come into force on January 1st, 1924. Deaths of native servants during service are to be reported and provision is made for compensation in the event of injury caused by defective machinery.

Under the Customs Ordinance, 1923, which is to come into force on January 1st, 1924, drugs, dressings, medicines, antiseptics, scientific instruments and apparatus, surgical instruments and appliances and radium are admitted free of duty. Proprietory medicines are to pay 30 per cent. *ad valorem.*

REGISTRATION OF MEDICAL AND DENTAL PRACTITIONERS.

On January 1st, 1923, the Register contained the names of :—

Medical Practitioners	31
Dentists	1

During 1923 the following additions were made to the Register :—

Medical Practitioners	3
Dentists	0

and there were removed from the Register, on final departure from the Territory, the names of :—

Medical Practitioners	2
Dentists	0

On December 31st, 1923, there were, therefore, on the Register the names of :—

Medical Practitioners	32
Dentist	1

Of the new names added to the Register one is that of a member of the Medical Department and two of practitioners engaged in missionary work.

Of the twenty persons holding a licence to practise medicine and surgery at the commencement of the year, two, after leaving Government service, were granted renewals of their licences to practise privately. On the recommendation of the Medical Board, one of these licences was subsequently withdrawn. Thirteen new licences, all to persons in the Medical Department, were issued during the year and two lapsed on the death of the licencees. At the end of the year, therefore, there are thirty licensed practitioners, one of whom is in private practice and twenty-nine in the Medical Department.

The Medical Board consisted, on 31st December, 1923, of Dr. J. B. Davey (Chairman) and Drs. A. H. Owen and G. G. Butler (Members). Dr. Owen having been nominated to fill the vacancy caused by the retirement from the service of Dr. Owen Prichard.

Registration of Druggists.

To the list of licencees there were added, during 1923, two new names: one of these persons is in business and the other is the newly-appointed Assistant Medical Storekeeper. The register contained, therefore, five names at the close of the year.

Recommendations.

1. A considerable increase in the *Staff of European Medical Officers*: There are 22 Administrative Districts and a greater number of sub-districts, some of which are of large extent. It is considered that there should be European Medical Officers at the headquarters of at least the 18 most important districts. A heavy strain is thrown upon the existing personnel by the paucity of staff and much of their time is occupied in routine duties, such as medical boards, reporting upon the health of sick officials, examining officials prior to departure on leave, examinations of recruits for the K.A.R. and Police, duties which would be distributed over a large number of medical officers were the staff greater. Moreover, it by no means infrequently happens that medical officers at busy stations are called upon to make long journeys hurriedly, with resulting disorganisation of their work, to visit officials struck down by serious illness at stations where no European medical attention is available. In addition, Medical Officers are required for special duties in connection, principally, with endemic diseases. In the first instance investigation work is required—into the distribution of Human Trypanosomiasis, Yaws, Ankylostomiasis, Schistosomiasis, Venereal Diseases, etc. Having gained some idea of the prevalence and distribution of these diseases and the areas in which work can be most profitably undertaken, some of these Officers would then be established at suitable centres with branch hospitals, in the immediate charge of trained Native or Asiatic assistants, at subsidiary centres. I would emphasise that, at these centres and subsidiary centres, it should be the object to treat, as far as possible, all cases which present themselves. The time has not arrived in this country for watertight compartments to deal with individual diseases. In districts where Yaws, for example, is specially prevalent, special facilities for dealing with it should be provided, but the organization would be the same as that dealing with Ankylostomiasis and Sleeping Sickness, if they exist, in the same area. The difference between these centres and ordinary medical stations would be that the Medical Officer at the former should be unhampered by a great part of the official routine and able to devote himself to a study of the prevalent diseases amongst natives and the best methods of attacking them. He would gradually raise the general standard of sanitation and health in the villages. Infant mortality and its causes would also be his concern and, after some knowledge had been gained, his staff might be strengthened by the addition of a European nurse. To the writer the future of this country seems to depend so greatly on increase of its scanty native population that the preservation of native life appears all important. Large tracts of country are now practically abandoned to tsetse fly and wild beasts for want of cultivators.

2. *Sanitary Staff.*—At present Medical Officers on the general list are seconded as Medical Officers of Health: fortunately we have three Medical Officers who hold the D.P.H. I consider that a separate division, consisting of at least four Medical Officers of Health, should be formed. One of these would be stationed at each of the three most important townships—Dar-es-Salaam, Tanga and Tabora. The fourth would act as relief for these officers. The addition of a fifth Medical Officer of Health, available for duty in any special emergency and, at other times, to improve the sanitary organization in townships of lesser importance, where the Medical Officer is too occupied with medical work to be able to attend to these duties satisfactorily, would be of great value. By spending a month or two at each station this officer could, in conjunction with the Medical Officer of the station, effect great improvements and possibly economies also. New townships are being declared and an increase in the staff of Sanitary Inspectors to keep watch on their development is, or shortly will be, required.

3. *Improvement of Street Drainage and Roads* in the principal towns. Considerable improvements have been effected by the Public Works Department, but much more remains to be done, especially in the native quarters of towns. The deplorable condition of the roads in native quarters makes conservancy work a matter of difficulty, and the maintenance of earth drains, one of which in Dar-es-Salaam is in a cutting quite 10 feet deep, absorbs sanitary labour which could profitably be used elsewhere. In the wet season the sides of these drains fall in and the channel becomes blocked. The deeper drains should be piped and covered over.

4. The amount of *Clerical and Storekeeping Work* has steadily increased and now occupies a great deal of the time of Medical Officers at the important stations. A class of assistants, of the type employed by the Germans in large numbers in their medical department of this Territory, is needed. A man who could do the dispensing; keep store ledgers; prepare indents on the headquarters store and returns of equipment; order, store and issue the food for native patients; type letters, make out pay vouchers, and do the hundred and one small jobs which, at present, consume so much of a Medical Officer's time would relieve him of an immense amount of work for which, in most cases, his training has not prepared him. He would then be able to devote more attention to his professional work. I believe that excellent candidates could be found in the shape of retired sick bay personnel of the Royal Navy and Warrant and N.C.O.'s of the R.A.M.C. Application has not been made for these men, but I consider that the question should be carefully considered. Some form of assistance in clerical and routine duties is becoming an urgent necessity.

5. An *Office Superintendent or Chief Clerk* for the Principal Medical Officer's Office is also an urgent necessity and has been mentioned previously. A *European Accountant* at headquarters would enable the cost of maintenance in the various hospitals to be ascertained and a closer watch to be kept over expenditure with resulting economy.

6. The need for a *Medical Entomologist* has been mentioned by the Senior Sanitation Officer (p. 101) and in the Report for 1922. Recent advances in Tropical Medicine show that the economical and intelligent application of anti-malarial measures demand more than a blind attack on all mosquitoes and that expensive operations may lead to no diminution of Malaria. A careful entomological survey is a necessary preliminary to success. But Malaria is by no means the only problem awaiting such an officer, large as that problem is. The officer appointed should be a biologist with some medical training and equipped to advise on helminthic questions. "Medical Biologist" would perhaps be a better designation.

7. The *Sewa Hadji Hospital* occupies what will shortly become a very valuable site in connection with shipping. For a hospital the site is by no means ideal. It is suggested that the present site should be abandoned to other purposes and a new hospital, designed and equipped on modern lines, erected elsewhere. Probably a suitable site could be found in the neighbourhood of the present Infectious Diseases Hospital. It might be advisable to retain a small part of the present building as a first aid station, for the new hospital will necessarily be at some distance from the harbour and railway and public workshops. Most of the buildings of the present hospital are poorly constructed and inconvenient for the purpose. The new hospital should comprise Indian as well as Native accommodation.

8. Recommendations concerning *Prisons* will be found on pp. 170-171.

9 *Reduction of Vegetation in the Coast Towns* and other low-lying malarious and humid localities is needed. It is referred to by the Senior Sanitation Officer on pp. 46-47. In Dar-es-Salaam suitable building sites will shortly become difficult to find and it is considered that the Botanical Gardens should be reduced to a small open space, the ground thus set free being used for building purposes. Expense in upkeep of these gardens, which do much to cut off the breeze from European residences, would be saved. The presence of a veterinary paddock in the best residential quarter of this town is an anomaly which must also shortly give way to the convenience of residents.

10. A qualified *Assistant to the Director of the Laboratory* is needed as has been mentioned in the Report for 1922.

11. The need for a *Building Inspector* and a *Sanitary Engineer* have been mentioned by the Senior Sanitation Officer at p. 101, and I need only endorse his remarks.

12. *Registration of Births and Deaths*, amongst all denominations, in all townships. I need hardly adduce arguments to prove the desirability of this measure.

13. *Disinfector for Dar-es-Salaam.* It is considered that an efficient disinfector, a large-sized Thresh or a Washington Lyon, should be provided for Dar-es-Salaam.

14. Raising the level of the lower part of *Gerezani Creek*, Dar-es-Salaam. This creek is probably still the main source of anopheline mosquitoes in Dar-es-Salaam and no special funds from Public Works votes have been available for work on it during the past two years; the amount that can be done with surplus sanitary labour is small. This subject is referred to by the M.O.H., Dar-es-Salaam, on p. 50.

15. *Removal of Refuse by Motor Transport.* This has been suggested by the M.O.H., Dar-es-Salaam. Ox transport is employed in the larger towns and hand-drawn carts in places of lesser importance: it is admittedly a slow and cumbrous method. A careful trial should be made in Dar-es-Salaam, for I am not convinced that the change would make for efficiency or economy at present. Our incinerators are in the township: when the time comes for refuse destruction at a depot some distance outside the town, no doubt motor transport will be adopted.

16. *Housing of Medical Officers.* It would make for contentment in the service were good houses, conveniently situated as regards the work, to be built and definitely assigned to Medical Officers. The existing system is for houses to be allocated by the Senior Administrative Officer of the district and the Medical Officer has no security of tenure.

17. The time has, perhaps, not yet arrived for a *Medical Training School for Natives*, but it cannot be far distant and some suggestions on the subject may not be out of place. It will necessarily be in close proximity to a large native hospital and to one of the principal centres of the Education Department. In the early stages of training the pupils should devote part of their day to continuing their general education at the Education School. Living is dear on the coast and more promising pupils would probably be found in the interior of the Territory: their work, when training is completed, will be principally amongst tribes in the interior. For all these reasons Tabora or Mwanza suggest themselves as possible sites for the Medical Training School.

J. B. DAVEY,
Principal Medical Officer.

III. *SANITATION.*

This report of the work of the Sanitation Division during 1923 is submitted in the same form as the Model Sanitary Report issued by the Colonial Office in May, 1923.

I. ADMINISTRATIVE.

STAFF.

The staff of the Sanitation Division was as follows:—

Senior Sanitation Officer.
M.O.H. Dar-es-Salaam } seconded from Medical Division.
M.O.H. Tanga } seconded from Medical Division.
European Sanitary Superintendent 1st grade 2.
European Sanitary Superintendent 2nd grade 5.
Asiatic Sanitary Inspectors 3.

In addition a number of partially trained natives are employed as Native Sanitary Inspectors, Mosquito finders, Vaccinators, etc.

The Senior Sanitation Officer was on duty throughout the year.

Dr. R. Nixon acted as M.O.H., Dar-es-Salaam, from January 1st-20th May.
Dr. R. R. Scott, acted as M.O.H., Dar-es-Salaam, from 21st May-December 31st.
Dr. A. I. Meek acted as M.O.H., Tanga, from January 1st-June 12th.
Dr. R. Nixon acted as M.O.H., Tanga, from 13th June-27th November.
Dr. A. I. Meek acted as M.O.H., Tanga, from 28th November-December 31st.

Three European Sanitary Superintendents were on leave during part of the year.

The greater part of the European and Asiatic staff is stationed at Dar-es-Salaam and Tanga. Outside these two towns, one European Sanitary Superintendent is stationed at Tabora and Asiatic Sanitary Inspectors at Mwanza and at Kigoma. The Medical Officers or Sub-Assistant Surgeons stationed at all towns except Dar-es-Salaam and Tanga have to act as Medical Officers of Health in addition to their other duties.

FINANCIAL.

The following sums were allocated for Sanitation and Public Health work during the financial year.

The salaries of the European and clerical staff are not included.

Native Sanitary Inspectors (including salaries for Asiatic Sanitary Inspectors)	£1,980
Vaccinators	500
Sanitary Labour	11,700
Sanitary Equipment	720
Upkeep of Quarantine and Infectious Diseases Hospitals ...	800
Maintenance of Lepers, Lunatic and Incurables	4,400
Pauper Burials	10
Epidemic outbreaks and special Sanitary Measures	1,000
Sleeping Sickness Measures	800
Oils and Disinfectants	400
Uniforms for Sanitary Inspectors	175

In addition, other Medical votes, such as "Medical and Surgical Stores," "Vaccine and Serum," have been drawn on as required.

INSPECTIONS.

Either the Principal Medical Officer, the Acting Deputy Principal Medical Officer or the Senior Sanitation Officer inspected the following stations during the year:—

Arusha, Dodoma, Kasanga, Kigoma, Kilossa, Kilwa, Korogwe, Lindi, Mikindani, Morogoro, Moshi, Muheza, Musoma, Mwanza, Namanyere, Pangani, Shinyanga, Tabora, Tanga.

Extracts from the reports on these stations, with recommendations for the improvements of any defective conditions observed, were sent to the Departments concerned.

RURAL SANITATION.

With the present staff, little can be done to improve the sanitary condition of the rural areas. Even with a very much larger European personnel attached to the Sanitation Division, years of propaganda would be required before some of the tribes in the Territory could be taught to obey the most elementary sanitary rules.

The African native is still a most conservative person, and what was good enough for his predecessors is good enough for him.

Administrative Officers throughout the Territory are most anxious to improve the conditions under which the natives live and to reduce the incidence of infectious and other disease.

What is required is to convince the chiefs and better-class natives that alterations and improvements suggested are for the general good of the native and not merely devices of the Government to worry and annoy.

Under present conditions it seems that the only means available is by lectures delivered to teachers and pupils in the schools. Many of the pupils are sons of chiefs, and if they can be taught that personal hygiene and Elementary Sanitation are desirable, there is some hope that conditions will improve amongst the rural communities. The different tribes in the Territory vary greatly in their attitude towards medical and sanitary innovations. The Bukoba district on the Uganda border is inhabited by a fairly intelligent type of native with progressive chiefs; an extract from the Annual Report on the Bukoba district submitted by Dr. Williams follows :—

" I would like here to record my appreciation of the services rendered by the Native " Administration in connection with suspected outbreaks of any epidemic. They seem " always to report at once and to institute a very strict quarantine, on their own " initiative, and when I have been able to go out myself, they have always rendered me " the utmost assistance, and I have found them to have made satisfactory arrangements " for isolation, and the results of their precautions speak for themselves."

On the other hand, investigations in less advanced areas may do more harm than good. The Sultanate of Meatu borders on the Sleeping Sickness Area in the Mwanza district. As this Sultanate is also infested with G. swynnertoni, native dressers were sent there to take a series of blood slides to ascertain if Sleeping Sickness was present in the area. The result is stated in the following extract from a report by the Senior Commissioner of the Mwanza district, who has always shewn the greatest keenness in carrying out Anti-Sleeping Sickness measures in his district :—

" On the 13th December I received a report from the Sultan of Meatu that his " natives were in much fear of the medical dressers taking blood slides and that as " a direct result thereof many were removing to other areas in this district and even to " the Mkalama sub-district.

" He pointed out that his natives were wild and primitive and had never been " accustomed to any medical or hospital requirements. I saw Dr. Thomson and we " agreed that the only possible plan would be to recall the dressers and suspend " operations until he or I could tour the area and superintend the matter."

During 1923 an attempt was made to ascertain the total number of lepers in the Territory. In the report sent in by the Administrative Officer in charge of the Lindi district, which adjoins Portuguese East Africa, the following remarks occur :—

" The rumour has recently gained currency that all lepers are to be taken by force " and sent away to camps. The natives' objections to this are, of course, well enough " known. The rumour appears to have come from the Coast. Efforts have been made " to assure the natives that their fears are at present groundless, but it is difficult to " eradicate such rumours once they have gained ground. Already three lepers are " reported to have crossed to P.E.A. to escape the proposed segregation."

The spread of education and improved Urban Sanitation must in time react on the rural areas. Natives who have been to school and who have resided in a well-kept town will come to realize that personal hygiene and efficient sanitation result in greater comfort and improved health. The natives belonging to some African tribes keep their huts and immediate surroundings reasonably clean, while the deep pit latrine in common use seldom gives rise to any nuisance. Other tribes use no latrines and have no idea of sanitation. Plans of simple types of field incinerators have been prepared and will be issued to Medical Officers or Administrative Officers in the hope that they will be able to arrange for their erection in the larger villages.

Ordinance No. 25 of 1923. " An Ordinance to Regulate Native Authority " contains provisions which should be of considerable assistance in preventing the onset and spread of Epidemic Diseases. Section 6 of this Ordinance gives powers to an Administrative Officer to issue orders to natives under his jurisdiction for a number of purposes, amongst these the following are of importance to this Department :—

Preventing or remedying the pollution or obstruction of any river, stream, water course, spring, or water hole.

Prohibiting, restricting or regulating the immigration of natives from or to the area under his jurisdiction.

Preventing the spread of infectious or contagious disease, whether of human beings or animals, and for the care of the sick.

Requiring the death of any native dying within his jurisdiction to be reported to the headman or other authority.

URBAN SANITATION.

The financial condition of the Territory did not permit of any major works of Sanitary importance being carried out during 1923 in the majority of the townships. Improvements in the larger Urban areas are commented on in the reports on pp. 47 to 85. The minor works completed in the less important towns were in the main confined to improvements in existing structures, such as markets, slaughter-houses, public latrines and incinerators. An attempt is being made to erect incinerators of the same type in all of the smaller towns. If this policy is carried out, a more correct estimate of the number necessary for each town, and of the sanitary personnel required will be possible. An additional advantage will be that Native Sanitary Inspectors or Sanitary Headmen can be taught to use the type incinerator to the best advantage and will not be faced with a fresh problem when transferred from one station to another. The type incinerator selected is the Khartoum pattern figured on page 172 of Volume I. of Byam and Archibald's work. Taken as a whole the sanitary condition of the Urban areas of the Territory has been satisfactory throughout the year, and no serious outbreak of infectious disease was reported during 1923.

The Township Rules, 1923, were brought into force on April 1st, and gave the Township Authorities the powers required to maintain the townships under their control in a sanitary condition.

The rules contain sections dealing with suppression of mosquitoes, and other nuisances, insanitary premises, disposal of refuse and night soil, provision of dustbins, water supplies, food protection, including milk and ærated waters, control of laundries and other trades, slaughter-houses, offensive trades, and the inspection and control of common lodging houses.

In addition, the building rules included lay down the procedure to be followed before a privately-owned building can be erected and the technical portion of these rules ensure that buildings shall be constructed of proper materials and in a satisfactory manner. Provision is inserted for the control of native type huts and houses in the native area.

The section dealing with Police Offences specifies a number of offences against good order in the township. The " Township Rules " have now been in force for nine months and in some cases alterations appear to be desirable. A series of amendments is under consideration at the present time.

Government Notice No. 48 appoints the following officials to be members of the Township Authorities :—

President.—The Senior Commissioner or next Senior Administrative Officer, or the Administrative Officer in charge of the District or Sub-District in which the township is situated.

Members.—An officer of each of the following departments to be nominated by the head of the department concerned :—

The Medical Department,
The Public Works Department ; and
The Land Department.

The Officer of the Medical Department shall be the Executive Officer, unless the President otherwise directs.

The appointment of Medical Officers of Health and Medical Officers as Executive Officers has greatly increased the clerical work which has been done by members of the Medical Department. Few of these officers are provided with clerks, and the question of appointing other Executive Officers is under consideration.

Excessive vegetation continues to be one of the most objectionable features of the coastal towns. A considerable number of trees have been removed from the Botanical Gardens at Dar-es-Salaam, but in the opinion of this Department very many more, particularly heavy shade trees, such as mangoes, could be removed with advantage. These not only obstruct the free passage of the North East Monsoon which blows during the hot season, but also serve as shelters for mosquitoes during the day. Coconut palms, incriminated by Dr. Haworth as breeding places of mosquitoes, exist in thousands in the coastal towns. Under the Township Rules the planting of coconut trees within Township areas has been prohibited, but until large numbers of the present trees have been removed, the stagnant air and excessive numbers of mosquitoes, so noticeable in the towns on the coast, will continue to be a menace to the health of the residents.

His Excellency the Governor, after a visit to Lindi in the middle of the year, instructed the Senior Commissioner to remove the coconut palms between the sea and the European residences and Bazaar. The total number of palms in Lindi town is 10,998 and 1,982 of these are to be removed. The Senior Commissioner stated that he felt confident that when the area is cleared the difference in temperature will be very great indeed. No report of the result of this experiment has been received by this Department, but it is to be hoped that if the experiment is a success, permission will be granted to remove numerous coconut trees from other coastal towns.

EXTRACT FROM THE ANNUAL REPORT OF DR. R. R. SCOTT, M.C., MEDICAL OFFICER OF HEALTH, DAR-ES-SALAAM

The year 1923 has not been marked by any events of great importance from a Sanitary point of view. ...

Routine work has been carried on, but the universal financial stringency has prevented the execution of many of the public works, which were recommended in the reports for previous years.

No outbreaks of serious epidemic disease have occurred, and the rainfall has been very low, but in spite of this the incidence of Malaria, a preventable disease, remains high.

The conditions affecting the health of the town have been described at length in the Reports for 1921 and 1922; this Report is therefore short, since it is unnecessary to recapitulate the information already given.

It is necessary to comment, however, on the introduction of the new Township Rules which came into force on 1st April, 1923. These rules amplify and cancel previous legislation under which the sanitation, private building, and conduct of the people in the Township were controlled, while the boundaries of the Township have been amended so as to include certain areas formerly outside the Township, but which it was considered advisable to bring under control.

The year has seen the completion of the new Market, which does great credit to the Public Works Department, and the extension of the water mains through the Commercial and Residential areas. These are works of outstanding importance and make a long step forward in the improvement of the town. Extensive building of native houses is preceeding on the area between the new Market and Msimbazi valley on most satisfactory lines.

Tuberculosis has been added to the list of notifiable Infectious Diseases.

PREVENTIVE MEASURES.

Mosquito-borne Diseases.—Routine searching for breeding places of mosquitoes and maintenance of drains have been continued as usual. Filling-in of low-lying ground has been attempted whenever labour could be spared from maintenance gangs. No money was available from Public Works funds during 1923 for the work of filling and draining the swamps already described in the 1921 Report. This is a very serious matter. Stated briefly, it means that the reduction of locally contracted Malaria and other mosquito-borne disease which might safely be anticipated by the abolition of the permanent breeding grounds immediately surrouning the actual town and within its boundaries does not at the moment justify the capital expenditure required. Available figures are not sufficiently reliable to form the basis of a calculation of the loss of money to the community through sickness and reduced efficiency of both its native and foreign elements, but anti-mosquito measures have been found profitable in all other parts of the world where work has to be carried on by large numbers of persons, and it may therefore be presumed that they would pay in Dar-es-Salaam.

Orenstein, now C.S.O. to the Mines in the Transvaal, who has been quoted before, has stated: "I want to express my absolute conviction that Dar-es-Salaam can be made healthy: Malaria can be eradicated more easily than in Panama."

The funds which have been available under Public Works votes for the drainage and improvement of swamps for the past few years are shewn below:—

1920-1921	£2,600
1921-1922	1,500
1922-1923	Nil.
1923-1924	Nil.

While considering the question of mosquito breeding, it is necessary to bear in mind that although the total rainfall for the year as recorded at the Health Office was only 25.65 inches as compared with the German average of 42.6 inches, the fall was distributed more evenly throughout the year than usually occurs, while the so-called " heavy rains " were unduly prolonged (*see* Table V., p. 70 and Graph).

The total collections of anopheles larvæ show a slight reduction, although the same searchers have been employed almost throughout.

Comparative Table showing collections of mosquito larvæ found in the Township :—

	1921	1922	1923
Anopheles	902	690	636
Culex	1,694	1,332	2,166
Stegomyia	892	697	1,457
Total	3,488	2,719	4,259

The chief recorded breeding places of *anophelines* were :—

	1921	1922	1923	
1. dockyard and Kurasini area (consisting of 6 creeks containing fresh water springs)	102	140	171	Collections.
2. Gerezani Valley	206	154	153	„
3. Town (swampy places, road pools and surface drains within the actual town and regularly searched by a special man)	196	127	125	„
4. Msimbazi Valley	227	93	80	„
5. Town (casual finds by the Sectional Inspectors)	54	142	68	„
6. Traps (January–June only)	45	34	22	„

Analysis of sources of Mosquito Larvæ.

	Drains.									Pools.								
	Anopheles.			Culex.			Stegomyia.			Anopheles.			Culex.			Stegomyia.		
	1921	1922	1923	1921	1922	1923	1921	1922	1923	1921	1922	1923	1921	1922	1923	1921	1922	1923
Gerezani	133	75	100	80	2	2	—	—	—	73	79	53	107	98	91	1	—	—
Msimbazi	156	80	61	30	7	4	—	—	—	71	13	19	28	19	32	—	8	—
Town (Special Searcher)	20	19	38	12	32	34	2	—	—	176	108	87	56	87	64	—	—	—
Street Gullies ..	—	—	—	234	155	138	—	—	—	—	—	—	—	—	—	—	—	—
Town (Sectional Inspectors)	17	17	28	91	139	176	2	2	—	37	103	40	57	132	87	16	3	4
Dockyard and Kurasini	102	41	50	76	21	12	2	—	—	—	99	121	—	65	14	—	1	—
Total ..	428	233	277	523	356	366	6	2	—	357	402	320	248	401	288	17	12	4
Traps..	45	34	22	258	136	127	152	51	51	—	—	—	—	—	—	—	—	—
Cesspits and Soakage Pits.	—	—	—	85	196	386	1	1	—	—	—	—	—	—	—	—	—	—
Tanks, Jars, Barrels	1	11	3	95	171	753	266	403	1,200	—	—	—	—	—	—	—	—	—
Wells	2	11	13	27	59	75	—	—	1	—	—	—	—	—	—	—	—	—
Rubbish	—	—	—	10	5	101	6	15	136	—	—	—	—	—	—	—	—	—
Holes in Trees ..	—	—	1	1	—	68	—	—	21	—	—	—	—	—	—	—	—	—
Dhows: Water Barrels	—	—	—	4	8	—	22	77	37	—	—	—	—	—	—	—	—	—
Crab Holes	—	—	—	—	—	—	91	136	—	—	—	—	—	—	—	—	—	—
Total ..	48	56	39	480	575	1,510	538	683	1,446	—	—	—	—	—	—	—	—	—

The analysis of sources of mosquito larvæ shows how constant the various known breeding places have remained during the three years compared.

The serious rise in the numbers of Culex and Stegomyia larvæ found in tanks, jars and barrels (mainly in the native quarter) shows how important it is for a careful watch to be kept on such containers by means of regular inspections, and for the invocation of law against individuals who fail to take the necessary steps to prevent the finding of larvæ on their premises.

Coconut Trees.—One native has been employed from December in climbing coconut trees and searching for larvæ on the lines initiated by Dr. Haworth.

It has not been possible yet to identify the species obtained, but the number of trees from which larvæ were obtained is given below :—

	Jan.	Feb.	Mar.	April	May	June	July
No. of trees examined	Not recorded.						
Containing larvæ ..	Not recorded.						

	August.	Sept.	October.	November.	December.	Total.
No. of trees examined	333	314	387	384	353	1,771
Containing larvæ ..	50	73	87	83	78	371

Thus 20.9 % trees examined contained mosquito larvæ.

The adult mosquitoes hatched out from these larvæ have been examined by Dr. Aders of Zanzibar, who has differentiated them as follows :—

Stegomyiæ	420 specimens.
Culicidæ	7 ,,
Toxorhynchites	2 ,,

The finder was trained by Dr. Haworth's special climber and has no interest in the larvæ found : he simply brings what he finds to the office, where the larvæ are hatched out in their original bottles and the adults pinned out.

Tree Cutting.—The following figures have been supplied by the courtesy of the Director of Agriculture showing the number of trees felled in the Township during the year (largely mango and coconut trees) :—

Trees felled under supervision of Agricultural Department ...	1,056
Trees felled by order of District Town Planning and Building Committee to make room for the erection of new native houses	350
Total ...	1,406

This has improved the circulation of air in many areas wherein it was seriously impeded before.

Traps.—These have been discontinued since the end of June. Two complete years' records are now available for reference and it was not considered that the cost of upkeep and inspection of the 40 traps was justifiable any longer.

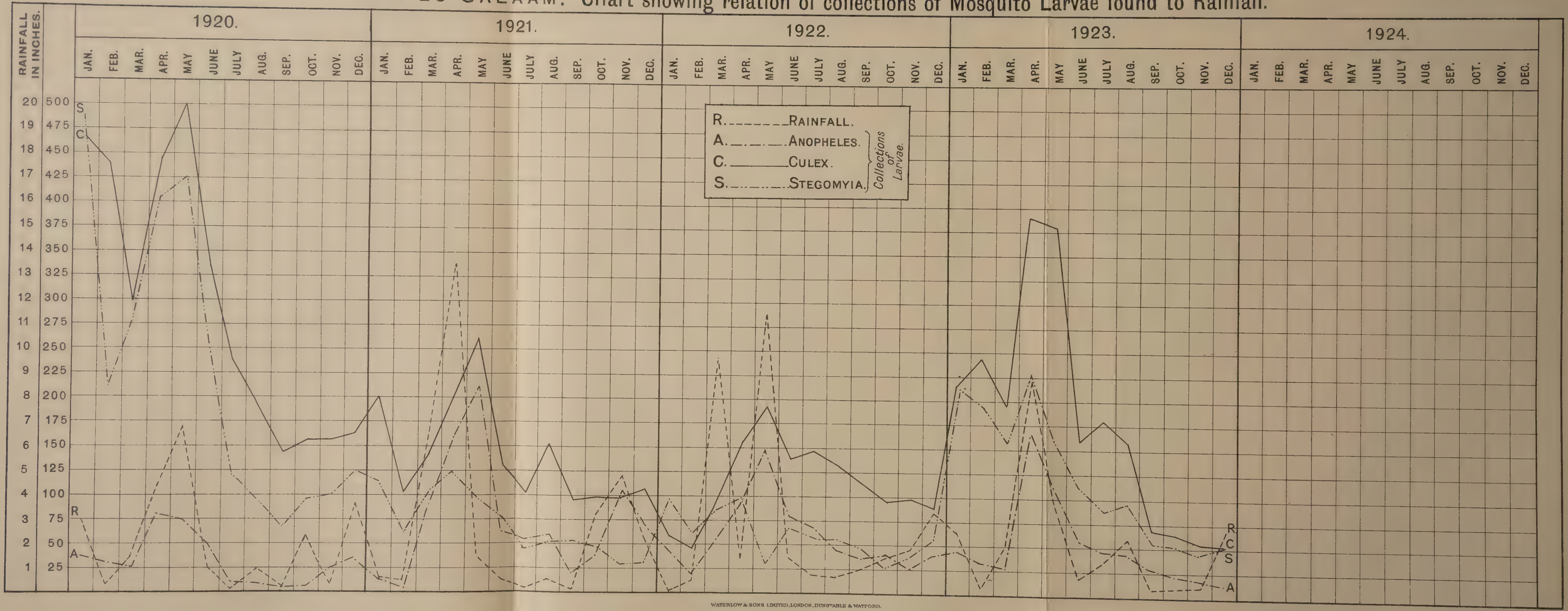
Filling and Drainage.—As stated above, little new work has been possible owing to lack of funds. Gerezani has absorbed almost all labour which could be spared.

Figures have been recorded confirming the observations made in relation to the rise of water in Gerezani creek at neap tides. This amounts to a difference of 18 inches between highest and lowest levels within the creek. Further filling work is urgently needed here to eliminate the most dangerous anopheline breeding ground within the town.

Dr. Nixon in his report for 1922, analysed the Malaria notifications and his results suggested that Gerezani Creek was the main source of infection of Europeans and Asiatics.

The new masonry drain constructed in 1922 from Chafukoga to Bagamoyo pool has done much to reduce the mosquito breeding in that area. Branch drains are, however, required to feed this drain, since the existing earth drains are immediately choked with sand when heavy rain occurs.

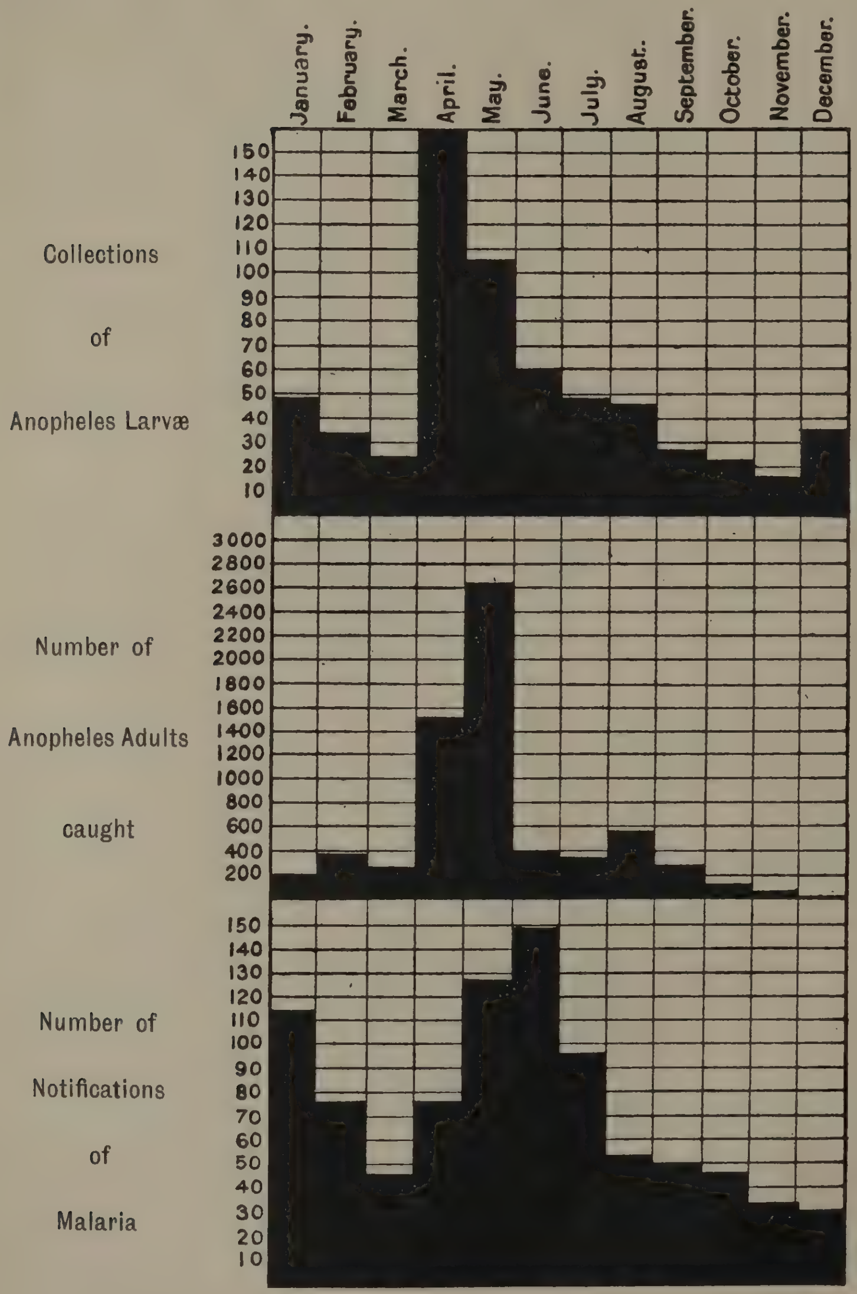
DAR-ES-SALAAM. Chart showing relation of collections of Mosquito Larvae found to Rainfall.



WATERLOW & SONS LIMITED, LONDON, DUNSTABLE & WATFORD.

CHART SHEWING RELATION OF CASES OF MALARIA

notified to larvæ and adults of Anopheles mosquitoes found.



Little has been done at Mkongeni owing to lack of labour. This area is heavily infested from Gerezani creek and from the six Kurasini creeks. Adult anophelines can be caught in the King's African Rifles lines or depot throughout the year.

Malarial Infection.—Notification has been continued throughout the year.

A total of 883 cases of Malaria and eight of Blackwater Fever were notified, of which 59.2 % were confirmed by blood examination. Such a result is gratifying to the Statistician for he knows that the figures are fairly reliable.

SUMMARY OF ANTI-MOSQUITO WORK DONE.

	1921	1922	1923
Collection of Larvæ found :—			
Anopheles	902	690	636
Culex	1,694	1,332	2,166
Stegomyia	892	697	1,457
Adult Mosquitoes caught in houses :—	(7 months)		
Anopheles	578	3,735	6,481
Culex	—	41,620	4,377
Stegomyia	—	64	43
Drains inspected, number	80,506	69,005	71,096
,, oiled	13,081	12,534	10,586
Cesspits and Soakage Pits inspected	125,709	94,661	112,218
,, ,, oiled	15,849	9,104	4,139
Pools inspected	17,181	23,375	23,712
,, oiled	6,746	8,998	6,324
Wells inspected	29,401	25,281	22,372
,, oiled	5,679	7,203	4,377
Tanks, Jars and Barrels inspected	306,462	279,414	255,755
,, ,, ,, oiled	2,783	1,914	1,076
Ditches cleaned, miles	239	371	441
,, dug, miles	3	1·3	2·2
,, requiring regular cleaning, miles	21·5	22	—
Pits, excavations and depressions filled, approximately, cubic yards	5,302	598,122	6,400
Mosquito notices served	135	12	210
Prosecutions for Mosquito Larvæ	—	—	10

A graphic comparison of Malaria notifications with finds of anopheline larvæ and anopheline adult catches in houses shows the three curves in close correlation; that of Malaria, following shortly after those of larvæ and adults. This is only to be expected, but it again shows that the figures are to some extent reliable.

The three sets of figures are tabulated for comparison :—

	Notification of Malaria.	Anopheline Larvæ found.	Adult Anophelines caught in houses.
January	113	48	216
February	76	36	283
March	44	26	234
April	74	166	1,589
May	127	105	2,649
June	147	59	324
July	95	48	323
August	52	46	510
September	50	29	229
October	44	23	99
November	31	16	25
December	30	34	Nil.
	883	636	6,481

Filariasis.—This disease, which causes so much loss of time and efficiency among the native population, is combated by diligent searching of all native houses for breeding places of mosquitoes. *See* Table IV. (11).

Dengue.—A few cases of this disease which is rarely diagnosed in Dar-es-Salaam have been reported.

Other Insect-borne Diseases.—It may be mentioned in passing that nine tsetse flies were caught on the outskirts of the town in July and kindly identified by the Game Warden as: G. Morsitans; G. Bievipalpis; G. Pallidipes.

These were all single specimens and were probably brought from the bush by cattle, although the places in which they were found were said to be suitable breeding places.

Plague.—No cases occurred. The rat situation was fully analysed by Dr. Nixon in the report for 1922. The number of rats caught has increased considerably :—

Year.	Total Rats caught.	Average No. of Catchers employed.	Average Rats per Catcher.
1921	3,421	2	1,710
1922	4,355	2½	1,742
1923	10,851	3	3,283

Relapsing Fever.—Seven cases have been notified, several of which appeared to have resided in the town for some months. Not a single tick (ornithodorus) has been found in any of the houses of the infected persons.

EPIDEMIC DISEASE.

General.—(*See* Table VI.) for admissions to Infectious Diseases Hospital.

No epidemic occurred.

Only one case of dangerous infective disease occurred which was fatal: the infected individual was a King's African Rifles soldier who died from cerebro spinal meningitis almost immediately after admission to the Sewa Hadji Hospital. His wife was placed under observation in the Infectious Diseases Hospital, but did not contract the disease.

The following table shews the notifications of infectious diseases received :—

STATEMENT OF INFECTIOUS DISEASES NOTIFIED IN DAR-ES-SALAAM DURING 1923.

Disease.	Reported by S.M.O., European Hosp.	Reported by M.O., Sewa Hadji Hosp.	Reported by Private Practitioners.	Reported by Medical Officer of Health.	TOTAL.
Chicken-pox ..	—	2	2	25	29
Fever, Enteric Group	9	3	—	—	12
,, Relapsing ..	5	—	2	—	7
Influenza	7	62	—	—	69
Leprosy	—	—	—	11	11
Measles	2	—	3	1	6
Mumps	—	3	—	11	14
Yaws	—	123	—	—	123
Tuberculosis ..	4	2	2	1	9
TOTAL ..	27	195	9	49	280

Tuberculosis was made notifiable on 14th June, 1923; this is a most welcome addition to the list of notifiable diseases. As will be seen, nine cases of tuberculosis were notified, all being infections of the lungs or larynx and therefore open cases. Only one case of bone Tuberculosis occurred, in which both spine and larynx were implicated.

There were 20 deaths from the disease. All certified except three (*see* Table of Deaths): giving a percentage of total deaths of 6.1 %.

Fly-borne Intestinal Disease.—Only one death from Dysentery was notified (variety not stated): there were no deaths from the Enteric group.

Small-pox.—No case occurred.

Vaccinations performed :—

1921	2,683
1922	398
1923	817

The majority of those vaccinated were passengers from ships and dhows from infected ports and were not seen on a second occasion. No extensive vaccination of the general population was carried out.

Leprosy.—Treatment of three of the adult cases of Leprosy which was commenced through the kindness of the Director of the Wellcome Bureau of Scientific Research, who provided the early supplies of ethyl esters of chaulmoogra, at the Infectious Diseases Hospital in 1921, has been continued. A dosage of 4 c.c. of "Moogrol" has now been reached: it is given weekly by intravenous injection and no ill effects have been seen. None of these cases are cured, but they were all somewhat advanced on admission, two being nodular and one nervous. One case shows considerable improvement.

But one case, a member of the Health Office staff, who was diagnosed very early and was discharged apparently cured in 1922 is back at work, and no signs of the disease have reappeared. The nodules which appeared on his face are indistinguishable from normal skin now.

An early case in a King's African Rifles askari admitted in 1923 shows marked improvement. His lesions consisted of small patches resembling ringworm on the lower lip and thigh about the size of a florin, and a line of similar roughened skin extending from above the left elbow well down the forearm, and accompanied by great irritation and loss of power and wasting of the muscles of the hand.

This case shows marked improvement.

Another case, diagnosed about six months after the disease was first noticed by the patient, who was one of the mosquito clerks at the Health Office, and unfortunately attempted to conceal the nature of his disease, was admitted in 1923 and shows some improvement.

Local injection of .1 c.c. of Moogrol into nodules has caused the nodule to become almost obliterated without suppuration in two different persons. No record was kept of the number of nodules so injected.

Leper Settlement at Nunge.—This was fully described in Dr. Nixon's report for 1922.

A small hospital for cases requiring much attention, a store for food, headman's house and one four-roomed house have been built during the year.

One dresser only is employed and rations and blankets are supplied from the Health Office. Four healthy children, one or both of whose parents were affected, have been removed from the settlement, and after examination which included taking a nasal smear, which was found to be negative, were placed under charge of the Roman Catholic Mission which kindly undertook to look after them.

STATEMENT OF LEPERS AT NUNGE LEPER SETTLEMENT FOR THE YEAR ENDING 31ST DECEMBER, 1923.

SEX.	Total at year ending 31.12.22.	Total admissions during the year 1923.	Total.	No. of Discharged	Total No. Absconded	Total No. Died	Total.	Total at year ending 31.12.23.
Male Adults	41	2	43	—	4	3	7	36
,, Children	4	—	4	1	—	—	1	3
Female Adults	36	2	38	—	2	1	3	35
,, Children ..	5	1	6	3	—	—	3	3
TOTALS	86	5	91	4	6	4	14	77

Yaws.—123 cases were notified.

Helminthic Disease—Ankylostomiasis.—This disease is known to be very prevalent, though no estimation of the number of the population infected by the worm or affected by its results has been attempted. The privy pits in the actual town being satisfactory on the whole, there appears to be much more evidence of the disease in natives from the district, where frequently no attempt is made to dig a privy.

Forty-three deaths (13.2 %) were attributed directly to the disease, of these, fifteen were certified deaths.

Tæniasis.—All meat slaughtered in the town is inspected by the European Stock Inspector. Meat heavily infested is destroyed; meat mildly infested is boiled under supervision and sold outside the township. No infested meat is sold in the market.

Bilharziasis.—No investigation of the source of infection or prevalence of this disease has been carried out.

(*iii*).—GENERAL MEASURES.

SEWERAGE DISPOSAL.

The sewer outlets on the foreshore have been reconstructed at an estimated cost of £1,400.

This has made an immense improvement in the sanitary condition of the beach: two more outlets still remain to be dealt with: that conveying the whole of the waste water, from the Railway area, and the Police Barracks drain which is under reconstruction at the time of writing.

The whole of the Police Barracks drainage is under reconstruction on modern lines, and is being made to discharge into a septic tank near the Sewa Hadji Hospital, the drainage from which it will eventually take also. The liquefied effluent from this tank will then discharge by the old outlet into the harbour. The old drain from the barracks will then take surface water only.

The new latrines at the market and Government Press are on the trough system and flushed by automatic tanks, the sewage passing into porous cesspits.

Servants' latrines (water-flushed oriental type) are being provided for all new residences, while many existing buildings have been provided with improved sanitary accommodation during the year. The latrine accommodation at the King's African Rifles lines still requires improvement, though that at the depot was much improved during 1922.

The need for a definite sewerage scheme for the town, if only a scheme towards which to aim, and in conformity with which new drainage plans for premises would be drawn up, remains pressing.

It would appear to be a mistake to perpetuate the cesspit system indefinitely as we are doing at present, with its inevitable expense, odours, and mosquito breeding.

It is hoped that the Public Works Department will give serious consideration to this matter in the near future, for it is certain that health and comfort will increase in direct proportion to the reduction which can be effected in the number of cesspits and soakage pits.

DISPOSAL OF REFUSE.

25,201 ox cartloads of refuse were received at the open incinerators in various parts of the town.

The depression known as "Chafukoga" has now been completely filled with ash from the destruction of refuse, and is no longer a danger from mosquito breeding. The new masonry drain constructed therefrom to the Bagamoyo pool carries off a great deal of the rain water which formerly lay about in this area, so that the necessity for further filling no longer exists.

It was therefore thought desirable to remove the greater number of incinerators to a swamp further up the hill in the native town, and such removal was actually undertaken. But it entails a further distance of half a mile as the crow flies, for the slow-moving ox carts to traverse unmade sandy roads: so at the first heavy rain it was found that the refuse arrived in such a wet state that it accumulated faster than it could be burned, and a number of incinerators had to be reconstructed at the old burning station near the centre of the town.

The difficulty of preventing fly-breeding at the incinerators during the wet season has been referred to before. (*See* 1921 Report, p. 146). The question of utilising the heat generated by all this refuse was carefully examined by the Chief Engineer, Electricity Department, and as a result of the analysis of a normal week-day's refuse, the following figures were obtained :—

Class of Refuse.	Total Lbs.	Percentage of Total.
Charcoal	56	·18
Stones	277	·87
Bottles and Glass	300	·94
Tins, &c.	531	1·67
Broken Crockery, &c.	211	·66
Coconut Husks	393	1·24
Grass, Paper, Straw and Vegetable Refuse	9,670	30·41
Sticks, &c.	56	·18
Bones	156	·49
Rags	565	1·78
Manure	1,607	5·06
Dust, Ashes and Sand	17,974	56·52
Totals	31,796	100·00

Total Combustible Material .. .. .. 39·34 %
Total Non-combustible Material .. .. 60·66 %

100·00 %

The total capacity of the open sleeper incinerators in use was approximately 1,085 cubic feet.

The Chief Engineer reported as follows :—

> "It would appear that the total refuse is only about capable of burning itself "owing to the high percentage of non-combustible material.
>
> "2. The quantities are not sufficient to justify this Department in taking over "the destruction of the refuse as it is considered that the only way to deal with the "matter would be to have refuse sorted daily and combustible refuse consumed, and "non-combustible buried in land or dumped at sea: the combustible refuse is only "equal to 30 cwt. of coal.
>
> "3. If the above method was adopted by your Department, a single-unit self-"contained Horsfall destructor would deal with the combustible refuse, that is, with "about 25 square feet Grate area.

ELECTRICITY DEPARTMENT,
3rd July, 1923.

"(Sgd.) L. H. KING,
"*Chief Engineer and Manager.*"

In view, therefore, of the difficulty of dealing with the refuse during rainy weather, and the increase in fly-breeding at that season, together with the smoke and smell caused by the slow combustion of the refuse in the incinerators used at present, it would appear desirable to consider the installation of a real destructor of the Horsfall type.

COLLECTION OF REFUSE.

The slow-moving ox carts have already been referred to. An average of 14 such carts were on the road during the year, worked by 40 natives at a cost in salaries alone of £528. The food supplied to the oxen to supplement the grazing cost £14.

It is thought that it would be more economical, and certainly more satisfactory, to employ motor transport for the long distance runs, especially in the residential area. Whether motor transport would be equally economical for short runs between groups of houses in the native quarter would require careful investigation, but some system of collecting stations might be adopted, wherein the refuse would be conveyed by hand or ox cart to the sub-station, and thence by motor transport to the central disposal station.

It is the writer's considered opinion that it is neither economical nor efficient to use ox cart transport for refuse when the disposal station is at a distance from the main collecting areas.

For the same reasons motor transport is replacing horse-drawn vehicles for the collection of refuse in English towns.

The question is capable of decision as a result of experiment, and would appear to be worth trial.

WATER SUPPLY.

Marked improvement can be reported in the quantity, continuity and quality of the water supply in the Residential area.

The new mains have been extended through the Commercial and Residential area, while a 4-inch main has been laid from the boreholes at Kurasini to the high level tanks at Gerezani.

The Brewery borehole water has been replaced by the combined Kurasini—Gerezani water at the furthest part of the Residential area, and many other buildings have been connected to this supply to the satisfaction of the occupants.

Further boring operations and the replacement of some of the pumps during the coming year are expected to yield a much larger supply of water, which will enable many more buildings to be supplied from the main, and so allow the closure of many more wells.

The boreholes at the New Market (formerly the Carrier Corps) have been reopened and new tanks erected thereat. This supply, though somewhat saline, furnishes a sufficiency of water for the supply of the abattoir, Government School, and nightly flushing of the New Market. It is expected also to supply the new Railway Asiatic quarters erected in the vicinity.

The reduction in price of water sold to the public from Government standpipes from about three farthings to one farthing per four-gallon tin is a popular achievement.

The progress made by the Public Works Department in the improvement of the water supply is a matter for congratulation.

It is to be hoped that the quantity of borehole water available will come up to expectations: if it does not, there are still 150,000 gallons of spring water running to waste in Gerezani creek every day.

CLEARANCE OF BUSH, UNDERGROWTH, ETC.

This work is carried on continuously so far as labour is available. The sides of all the surface drains in the various swamps are continually cleared of grass to a distance of 3 to 6 feet on either side. 26.9 acres have been recorded as cleared in this way. No record is kept of the areas cut along the broad roadsides, open spaces, and sea front.

STATISTICS.

Such figures as are available are given in Table III. (p. 65).

No census of the population has been taken since 1921 and it is useless therefore to base any calculations on the figures for that year, since the total population in each class of the community is so small and variable. Constant rates of increase of population cannot be presumed for the estimation of the population by formulæ, since the normal rates of increase from year to year have not yet been established.

No registration of Asiatic or African births has yet been made compulsory, and this deprives us of a further means of estimating the population.

The number of deaths notified shows a considerable rise above the numbers recorded for 1921 and 1922, the difference occurring among the Africans, whose total for 1923 exceeded that of 1922 by 54 deaths.

	Year.		
	1921.	1922.	1923.
Total deaths	229	239	325

Of the total recorded, 39.3 % were notified deaths, *i.e.*, the individual was seen by a Medical practitioner before death or the cause of death diagnosed by post-mortem. The remainder were diagnosed after inspection of the corpse as has been described in previous reports.

The four most frequent causes of death (certified and notified together) are :—

Pneumonia (all varieties) ...	55	(of which 19 were certified).
Ankylostomiasis	43	(of which 15 were certified).
Malaria	34	(10 certified).
Old age and natural causes	22	(none certified).

But of 19 deaths from Pulmonary Tuberculosis 16 were certified showing the importance of this disease to the community.

No other cause of death calls for comment.

Examination of the monthly deaths throughout the year shows a maximum of 38 deaths in August and a minimum of 18 in January, the mean monthly rate being 27.

TABLE OF DEATHS NOTIFIED.

Diseases.	EUROPEAN.	ASIATIC.		AFRICAN.		TOTAL.
	Certified	Certified	Notified	Certified	Notified	
Infective Diseases—						
Chicken Pox	—	—	—	—	—	—
Dysentery	1	—	—	—	—	1
Erysipelas	—	2	—	—	—	2
Gonorrhœa	—	—	—	—	—	—
Influenza	—	1	—	—	—	1
Leprosy	—	—	—	2* §	—	2
Malaria	1†	5	2	4	22	34
Blackwater Fever	1‡	1	—	—	—	2
Meningitis—Cerebro-spinal (confirmed bacteriologically)	—	—	—	1	—	1
Pneumonia—Lobar	—	4	—	4	1	9
—Lobular	—	7	—	2	4	13
—Undifferentiated	—	1	—	1	31	33
Pyrexia of unknown origin	1	—	—	—	19	20
Hyper-pyrexia	1	—	—	—	—	1
Pyæmia	—	—	—	1	—	1
Septicæmia, Puerperal	—	4	—	—	—	4
Tuberculosis—Spine and Larynx	—	1	—	—	—	1
—Lungs	—	5	—	11	3	19
Yaws	—	—	—	1	—	1
Local Diseases—						
Nervous System :—						
Cerebral Hæmorrhage	—	1	—	—	—	1
Convulsions	1	2	4	—	—	7
Paralysis Agitans	—	—	—	1	—	1
Epilepsy	—	—	1	1	1	3
Meningitis (cause not stated)	—	1	—	—	—	1
,, Tuberculous	—	1	—	—	—	1
Imbecility	—	—	—	1	—	1
Ear :—						
Otitis Media Suppurativa	—	—	—	1	—	1
Circulatory System—						
Pernicious Anæmia	—	1	—	—	—	1
Endocarditis (chronic) (including deaths certified "V.D.H." and Heart Disease)	—	—	—	2	3	5
Pericarditis	—	—	—	1	—	1
Syncope	—	—	—	2	2	4
Respiratory System—						
Bronchitis—Acute	—	4	2	—	4	10
—Chronic	1	—	—	—	15	16
Œdema of Lungs	—	1	—	—	—	1
Pleurisy	—	—	—	1	—	1
Undifferentiated "Chest Disease"	—	—	—	—	10	10
Carried forward	7	42	9	37	115	210

---

† Case died on board ship while proceeding from Lindi to Dar-es-Salaam.

‡ From Morogoro District.

* Complicated by Tuberculosis of Lungs.

§ Complicated by Ankylostomiasis.

TABLE OF DEATHS NOTIFIED—*continued.*

Diseases.	EUROPEAN.	ASIATIC.		AFRICAN.		TOTAL.
	Certified	Certified	Notified	Certified	Notified	
Brought forward.. ..	7	42	9	37	115	210
Digestive System—						
Ascites	—	—	—	—	1	1
Intestinal Obstruction	1*	—	—	—	2	3
Enteritis	—	2	1	—	4	7
Jaundice of the newly-born	—	1	—	—	—	1
Nutrition and Metabolism :—						
Diabetes Mellitus	—	1	—	—	—	1
Inanition	—	2	1	—	2	5
Urinary System—						
Nephritis—Acute	—	3	—	—	—	3
—Chronic	—	1	—	—	1	2
Cystitis (Gonorrhœal)	—	—	—	1	—	1
Generative System—						
Pregnancy :—						
Abortion	—	1	—	—	1	2
Parturition	—	2	1	—	—	3
Premature Birth	—	—	1	—	—	1
Stillbirth	—	—	4	—	—	4
Asphyxia Neonatorum	—	—	2	—	—	2
Urethral Stricture	—	—	—	1	—	1
Periurethral Abscess	—	—	—	1	—	1
Elephantiasis of Scrotum (operation) ..	—	—	—	1	—	1
Organs of Locomotion—						
Cellulitis of Leg	—	—	—	1	—	1
Injuries—						
General :—						
Burns	—	1	—	—	—	1
Scalds	—	—	—	1	—	1
Local :—						
Fractured Spine	—	—	—	1	—	1
Wound of Skull	—	—	—	1	—	1
Suicide by Hanging	—	—	—	1	—	1
Cut Throat	—	—	—	1	—	1
Crocodile Bite	—	—	—	1	—	1
Malformations	—	—	1	—	—	1
Animal Parasites—						
Neuratoda :—						
Ankylostomiasis	—	—	1	15	27	43
Filariasis	—	—	—	1	1	2
Old Age and Natural Causes	—	—	2	—	20	22
TOTAL	8	56	23	64	174	325

* Brought in from Morogoro District.

TABLE SHOWING INCIDENCE OF DEATHS OCCURRING IN DAR-ES-SALAAM TOWNSHIP DURING 1923.

Adults over 12. Children under 12.

Month.	EUROPEAN.				ASIATIC.				AFRICAN.				TOTAL.
	Adults.		Children.		Adults.		Children.		Adults.		Children.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
January	1	–	–	1	–	–	3	1	5	4	–	3	18
February	–	–	–	–	1	1	–	1	11	4	5	–	23
March	–	–	–	–	–	2	–	1	13	6	2	3	27
April	–	–	–	–	1	2	–	3	11	7	–	1	25
May	–	–	–	–	2	–	1	3	10	3	–	2	21
June	1	–	–	–	3	2	2	4	8	7	1	2	30
July	2	–	–	–	–	3	1	1	12	8	–	–	27
August	1	–	1	–	4	4	3	4	11	7	1	2	38
September ..	–	–	–	–	3	1	7	1	9	8	2	1	32
October	–	–	–	–	1	–	1	2	10	10	2	1	27
November.. ..	–	–	–	–	1	1	–	2	9	13	–	1	27
December ..	1	–	–	–	2	2	1	1	8	9	5	1	30
TOTAL ..	6	–	1	1	18	18	19	24	117	86	18	17	325

TOTAL 8. TOTAL 79. TOTAL 237.

The importance of more frequent census taking in the township is therefore urged, since without statistics it is impossible accurately to gauge the degree of improvement or otherwise which has taken place in the health of the inhabitants.

At the same time the need for the compulsory registration of Asiatic and African births is again mentioned, for the reasons explained at length in the 1921 Report.

Food Supply.—The removal of the market to the capacious new building formerly known as the Carrier Corps took place in August. This constitutes an important step forward in the improvement of the conditions under which the public food supply is conducted.

This lofty building measures 67 yards by 43 yards: its concrete floor slopes from the centre towards the sides, whence the drainage is carried off to porous cesspits.

An ample water supply is available, the whole market being flushed nightly by means of flexible hoses.

The building is lighted by electricity and is open till 8 p.m.

Water-flushed latrines, draining to a porous cesspit, have been provided for all classes.

The old market buildings are now used by sellers of foodstuffs, which are ready for consumption, such as fried fish, cakes, tea and coffee. This has eliminated the hawkers from the street corners, while all other fresh produce is sold at the New Market, doing away with the objectionable small fruit shops referred to in 1921.

Funds are available for the removal in the near future of the dried fish and shark market to a site near the new market; this will abolish another most objectionable feature from the commercial area.

Milk Supply.—Proceedings were instituted in 5 cases for the sale of milk contrary to paragraph 35 of Township Rules, 1923.

Convictions for selling milk which failed to reach the standard required were obtained in all cases.

Samples to Laboratory.—17 samples were sent to the Laboratory for examination:—

5 Samples of Soda Water.
7 ,, ,, Water.
5 ,, ,, Milk.

HOUSING AND TOWN PLANNING.

The building of additional quarters for Government Officials has relieved the congestion to some extent, but a large number of quarters are still rented from private firms and individuals for the housing of officials, while rents remain high.

PRIVATE BUILDING.

This is controlled by the Township Rules, 1923, which incorporated the Building Rules, 1922.

All plans for new buildings and structural alterations are considered by the Township Authority at their weekly meeting.

A summary of the work performed by the Township Authority from April 1st, the date of coming into operation of the Township Rules, 1923, to 31st December is given:—

No. of premises in respect of which written applications for new building, structural alterations or repairs were received	499
No. of plans approved	37
No. of minor applications for repairs and alterations	858
No. of applications for permission to construct new privy pits	380
No. of new building plots issued	335
No. of applications for permission to cut coconut trees	206
No. of notices served to demolish dilapidated houses	12
No. of notices served to abate nuisances	5
No. of notices served calling attention to work done in excess of, or at variance with, permission given by the Township Authority	32
No. of ordinary meetings of Township Authority	35
No. of extraordinary meetings of Township Authority	9
No. of meetings of District Town Planning and Building Committee ..	5

EXTENSION OF THE NATIVE QUARTER.

Simultaneously with the opening of the new market in August, a large number of building plots for native houses, which had been surveyed and demarcated by the Land and Survey Department on the vacant land lying between the New Market and the cliffs of the Msimbazi valley, became available.

These, to the extent of 335, were quickly taken up by natives who had, in some cases, been waiting for a very long time, and the construction of native houses of a uniform size and good quality was rapidly undertaken, many houses having reached a habitable state before the end of the year.

The plots measure sixty feet in depth by forty-five feet frontage on the street, and a house of a maximum size of forty feet by thirty may be erected thereon, thus leaving half the plot unbuilt upon.

Every house is thus separated from its neighbour by a space of fifteen feet, which allows for light, ventilation and fire protection.

The houses are constructed almost without exception of wattle and daub, and roofed with coconut leaves: they usually consist of five rooms, divided by a central passage and a front verandah. A kitchen, privy and enclosure for bathing are built in opposite corners of the back yard, and an airy, cool and sanitary native dwelling results.

It is expected that much relief of the congestion in the commercial area will result from this extension of the native quarter by enabling the Government to evict the owners from some of the dilapidated huts situated on Government land bordering on the Residential and Commercial areas, a course which has been hitherto impossible owing to the shortage of plots for native building.

SURVEY OF NATIVE TOWN.

Great progress has been made by the Land and Survey Department in the survey of the native town of which no accurate plan existed previously.

The survey shows how much can be done to economise space in the different blocks of houses by a new lay-out of existing plots and boundaries.

MEDICAL INSPECTION OF SCHOOL CHILDREN.

A native dresser attends the Government School daily and treats minor ailments. The Medical Officer of Health attends weekly to see more serious cases.

It is regretted that it has not been possible to give so much attention to this branch of the work as was done formerly.

The diseases treated (as diagnosed by the dresser) are summarized below :—

Ulcers	615	cases.
Cough	174	,,
Pain (situation not stated : includes bruises and minor injuries at football)	165	,,
Headache and Fever	134	,,
Colic	94	,,
Ringworm	70	,,
Scabies	63	,,
'Mba' (*tinea corporis*)	48	,,
Constipation	27	,,
Boils	16	,,
Earache	13	,,
Diarrhœa	11	,,
Yaws	10	,,
Impetigo	3	,,

41 Children were admitted to Hospital.

PORT HEALTH.

Ships cleared	303
Dhows cleared	824

No cases of Infectious disease were found on vessels arriving in the harbour.

The S.S. "Karagola" worked in quarantine in April.

Cases of Small-pox occurred on the following vessels from India and were quarantined at Zanzibar :—

"Karagola"	During May.
"Khandalla"	,, December.

Cases of Plague occurred on board S.S. "General Duchesne" from Madagascar for Marseilles during December. The disease had not been diagnosed when the steamer arrived in the outer harbour, and it was not diagnosed until its arrival at Mombasa, where four members of the crew were landed and found to be suffering from bubonic plague.

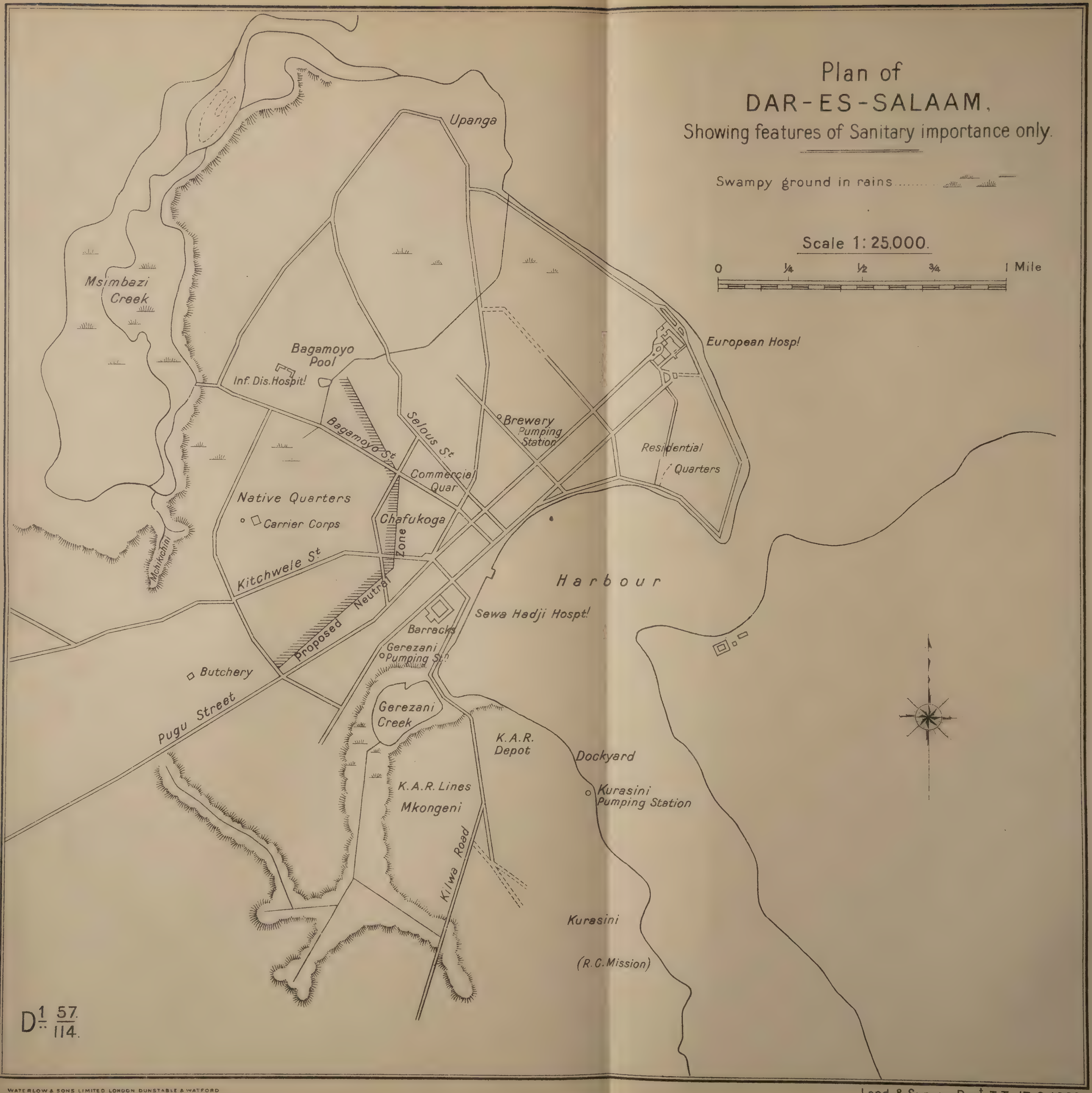
No passengers were disembarked at this Port which thus luckily escaped infection.

TUITION OF NATIVE SANITARY INSPECTORS.

This work is being carried on continuously : no examination was held during the year, but a more comprehensive course of instruction, embracing a little elementary teaching in physiology, chemistry and physics has been prepared ; only such matters being touched upon as a Sanitary Inspector is likely to meet with in the course of his work.

Four new probationary Inspectors were appointed during the year.

The results of the training given hitherto are distinctly promising.



Plan of
DAR-ES-SALAAM,
Showing features of Sanitary importance only.

Swampy ground in rains ....

Scale 1: 25,000.

D 1 57/114.

WATERLOW & SONS LIMITED LONDON DUNSTABLE & WATFORD

Land & Survey Dept. T.T. 17.2.1922.

LIBRARY
2 [illegible]

TABLE II.

FINANCIAL.

REVENUE AND EXPENDITURE FOR 1923.

Fees received by Port Office for Bills of Health	Shs.	2,336.00
Fees received for cesspit emptying—Reimbursement and Miscellaneous and Conservancy and Water Rates	,,	2,327.20
Over payments recovered	,,	174.36
Sale of Departmental Stores	,,	40.35
Reimbursement and Miscellaneous	,,	108.00
Total Revenue	Shs.	4,985.91

EXPENDITURE.

OFFICE AND ADMINISTRATION.			
Medical Officer of Health	Shs.	16,068.53	
Sanitary Superintendent, 1st Grade	,,	9,356.64	
Sanitary Superintendents, 2nd Grade	,,	9,954.07	
Temporary Sanitary Superintendent	,,	5,062.39	
Native Sanitary Inspectors	,,	8,007.58	
Asiatic Clerk	,,	1,794.30	
Two Native Clerks	,,	2,740.00	
Office Boys	,,	1,712.29	
Two Artisans (Native)	,,	1,366.89	
Yard and Motor Boys	,,	1,264.76	
			57,327.45
QUARANTINE AND I.D.H. AND LEPER SETTLEMENT.			
Sub-Assistant Surgeon	Shs.	4,355.18	
Boat Boys	,,	1,226.76	
I.D.H. Labour	,,	2,094.45	
Hospital Attendants	,,	881.56	
Vaccinators	,,	1,313.43	
Rat Catchers	,,	1,207.27	
Headmen and Dresser for Nunge	,,	425.00	
Food for I.D.H. and Leper Settlement	,,	5,275.54	
			16,779.19
ANTI-MOSQUITO MEASURES.			
Sanitary Inspector D'Souza	Shs.	6,000.00	
Mosquito Clerks, Finders and Oilers	,,	10,162.28	
Mosquito Drainers (permanent)	,,	21,267.95	
			37,430.23
General Duty	Shs.	14,833.98	
Cemetery Boys	,,	1,658.23	
Hedge Cutters	,,	2,473.13	
			18,965.34
LATRINE AND MARKET SWEEPERS.			
Latrine Sweepers	Shs.	4,426.43	
Market Sweepers	,,	2,008.34	
New Market Sweepers	,,	200.00	
			6,634.77
REFUSE DISPOSAL.			
Dump Boys	Shs.	5,168.81	
Ox Cart Boys	,,	10,566.66	
			15,735.47
CESSPIT EMPTYING.			
Pump Boys	Shs.	1,238.03	
Cost of two Daimler 2-ton lorries (approximately)	,,	11,160.00	
			12,398.03
ROAD SWEEPING.			
Residential Area	Shs.	4,254.00	
Commercial Area	,,	3,499.86	
Native Quarter	,,	2,210.90	
			9,964.76
Total Expenditure		Shs.	175,235.24

Summary of Expenditure incurred by Health Office during the Year 1923.

Head.	Sub-Head.	Unit.	Amount.
			Shs.
XIII.—Medical and Sanitary	7 Medical Officers	M.O.H.	16,068.53
,, ,,	18 European San. Supdt. ..	San. Supdts. and Store-keeper	24,373.10
,, ,,	24 Sub-Assist. Surgeon ..	J. W. Comfort and M. P. Dane	2,555.18
,, ,,	25 Compounder	A. S. Khan	1,800.00
,, ,,	27 N.S. Inspectors	S.I. D'Souza	6,000.00
		N.S. Inspectors ..	8,007.58
,, ,,	28 Vaccinators	N. Vaccinators.. ..	1,313.43
,, ,,	29 Hospital Attendants ..	I.D.H. Nurses	362.85
,, ,,	30 Asiatic Clerks	Clerk, Nanayakkara ..	1,794.30
,, ,,	31 Native ,, ...	Tom Harawa G. Kasembe ..	2,740.00
,, ,,	33 Sanitary Labour.. ..	Latrine Sweepers ..	4,426.43
,, ,,	,, ,, ...	Office Boys	1,712.29
,, ,,	,, ,, ...	Town Dump	5,168.81
,, ,,	,, ,, ...	Yard and Motor Boys..	2,502.79
,, ,,	,, ,, ...	Fundis	1,366.89
,, ,,	,, ,, ...	Road Sweepers, No. I.	4,254.00
,, ,,	,, ,, ...	,, ,, II.	3,499.86
,, ,,	,, ,, ...	,, ,, III.	2,210.90
,, ,,	,, ,, ...	Hedge Cutters	2,473.13
,, ,,	,, ,, ...	Ox Cart Boys	10,566.66
,, ,,	,, ,, ...	General Duty	14,833.98
,, ,,	,, ,, ...	Mosquito Brigade ..	10,162.28
,, ,,	,, ,, ...	Drainers	21,267.95
,, ,,	,, ,, ...	Rat Boys	1,207.27
,, ,,	,, ,, ...	Cemetery Boys ..	1,658.23
,, ,,	,, ,, ...	New Market Boys ..	200.00
,, ,,	40 Upkeep of Q. and I.D.H.	Motor Boat Boys ..	1,226.76
,, ,,	,, ,, ,,	I.D.H. Boys	2,094.45
,, ,,	,, ,, ,,	I.D.H. Nurses	518.71
,, ,,	,, ,, ,,	2 Headmen, Nunge ..	90.00
,, ,,	,, ,, ,,	Food for I.D.H. ..	1,744.55
,, ,,	41 Lepers, Lunatics, &c. ..	Nunge Headmen and Dresser	335.00
,, ,,	,, ,, ,,	Food for Lepers ..	3,530.99
VI.—District Administration	Market Sweepers	Dar-es-Salaam Markets	2,008.34
Transport Department..	.. ..	Cost of Cesspit Lorries..	11,160.00
		Total Shs.	175,235.24

TABLE III.

Statistics of Population for 1923.

	Europeans.	Africans.	Asiatics.
No. of Civilian Inhabitants—1921 Census	555	10,901	4,008
K.A.R. and Police not included in above	—	1,422	—
Total	555	12,323	4,008
No. of Births registered during the year—1921	11	—	—
1922	12	—	—
1923	12	—	8
(There is no compulsory registration of African and Asiatic Births.)			
No. of Deaths—1921	7	170	52
1922	11	184	44
1923	8	238	79
No. of Immigrants	423	—	1,049
No. of Emigrants	Not recorded.		
An increase of population in each class is presumed to have occurred, but no figures are available to support the presumption. Insufficient data are available for the calculation of the probable increase.			

TABLE IV.

Summary of Sanitary Work done during the Year in Dar-es-Salaam.

1.

	Approximate Area.	Number of Proclaimed Open Spaces.
1921	12 square miles	None Proclaimed.
1923	9·7 miles	,, ,,
	Note.—Both the above include a large area of water; the exact area of land within the township is not available.	

2. Population (Civilian only).

	No. of Natives (Asiatics and Africans).			No. of Europeans (including Americans).		
	Males.	Females.	Total.	Males.	Females.	Total.
1921	8,097	6,818	14,915	408	147	555
1922			*See* Table	III. above.		
1923						

TABLE IV.—*continued.*

3. HOUSING.

(Figures obtained from Taxation Registers and do not include Government Buildings.)

	Number occupied by Europeans.	No. occupied by Natives (Asiatics and Africans).
Number of Houses.—1921	25	588
1922	43	622
1923	53	530
Number of Huts.—1921	—	2,262
1922	—	1,975
1923	—	2,180

4. ERECTION OF NEW BUILDINGS DURING THE YEAR (APRIL TO DECEMBER).

Number of Houses built without sanction	None.—32 notices were served by the Township Authority for work done in excess of permits and contrary to plan.
Number of Huts built without sanction..	3 : all demolished by order.

Action taken.

Number of Prosecutions.		
	Huts.	Houses.
1923	None.	Two.

NOTE.—Eight New Government Residences completed during the year.

5. LATRINES.

		MALES.		FEMALES.	
		Number.	Number of Seats.	Number.	Number of Seats.
1. Number of Public Latrines.	Water carriage	3	18	2	4
	Incineration ..	12	52	3	4
	Total ..	15	70	5	8
2. Number of New Public Latrines erected during 1923.	Water carriage	1	12	1	3
	Incineration ..	—	—	—	—
	Total ..	1	12	1	3

TABLE IV.—*continued.*

5. LATRINES.—*continued.*

3. Number of Private Latrines on dry pan system with Incineration maintained by Health Office for Government Buildings only.	One.
4. Average number of pails of night soil removed daily.	Not counted ; too variable to estimate.
5. Average number of soiled pails removed and clean pails substituted.	Pans are removed, cleansed and replaced at once.
6. Number of Night soil Men employed to clean Latrines and remove excreta.	15.
7. Number of Cesspools, including Soakage Pits.	1921 : 2158. 1923 : No new count taken.
8. Number of Cesspools cleansed	Not counted.

	1921	1922	1923
Number of loads of cess removed	2,447	2,472	2,192 (548,000 galls,)
9. Number of new Cesspits constructed.. ..	Not recorded.		
10. Number of old Cesspools abolished	Not recorded.		
Number of new Privy Pits for which permits were issued	472	271	453

6. REMOVAL OF REFUSE.

	1921	1922	1923
1. Number of Dustbins (Government Bins) ..	—	—	194
2. Number of Carts removing street sweepings daily	—	—	—
3. Amount of street refuse removed daily ..	(*See* 5 below,	not recorded	separately.)
4. Number of Carts removing house refuse daily	14	14	14
5. Amount of refuse removed daily, *i.e.*, arriving at Incinerators from all sources :—			
Daily loads	59	74	69
Total Cartloads..	21,683	27,180	25,201
6. Number of Men employed for moving refuse :—			
Ox Cart Boys	—	—	40
Incinerator Boys	—	—	15

7. MODE OF DISPOSAL OF EXCRETA, REFUSE AND OFFAL.

	Daily average number of Pails of Excreta.			Daily average number of Cartloads of Refuse.			Daily average number of Cartloads of Slaughter-house and Market Offal.
	1921	1922	1923	1921	1922	1923	1921, 1922, 1923.
Buried ..	None.				None.		All slaughter-house offal removed by Veterinary Department. Market offal included with refuse.
Burnt ..	not counted.			60.2	74.4	69.8	

TABLE IV.—*continued.*

8. INCOMBUSTIBLE MATERIAL REMOVED.

Cartloads not counted separately—all refuse passed through incinerators before dumping. (*See* page 55.)

9. WATER SUPPLY.

Nature of Supply.	1921	1922	1923
Pipe-borne Water from Boreholes :—			
Number of Stand Pipes along roads	5	5	6
Price per four gallon tin (in pence)	.72	.48	.24
Number of Stand Pipes in Compounds, *i.e.*, number of Houses and Compounds supplied from mains.. ..	—	—	200
Number of Consumers supplied by water cart	—	—	50
Wells, Public :—			
Number, excluding Mosque Wells	7	7	7
Number with Pumps, and protected against surface water and Mosquito protected—completely		None	
—partially against surface water		All	
Private :—			
Number in use	295	—	not recorded
Number disused	52	—	
Number protected against surface water and Mosquito protected	—	—	—
Numbered uncovered or improperly covered	—	—	—
Tanks, Public :—			
Number Mosquito protected and served by Pumps—			
Water Supply	—	—	11
Fire Storage Tanks	—	—	8
Number above ground	—	—	19
Number Mosquito protected		All	
Private :—			
Number Mosquito protected		Not recorded	
Number above ground		„	
Nature of Tanks :—			
Wood		„	
Iron		„	
Concrete		„	
Barrels :—			
Number		„	
Number Mosquito protected		„	

TABLE IV.—*continued.*

10. DRAINAGE.

Nature of Drainage.	Public.	Private.
Masonry Drains. (Sewers and Piped Drains not included.)		
Lineal yards of Masonry drain.—1921	—	—
1922	2,745	—
1923	2,745	—
Lineal yards reconstructed during the year.—1921	—	—
1922	—	—
1923	—	—
Lineal yards repaired during the year.—1921	—	—
1922	—	—
(3 tidal valves repaired) 1923	—	—
Lineal yards of new drains constructed during the year.—1921	—	—
1922	2,670	—
1923	—	—
Earth Drains or Ditches :—		
Lineal yards of ditches cleaned including cleaning of masonry drains, and including regrading and repairing ditches—		
1921 (Miles 239) .. .. Yards	420,640	—
1922 („ 371) .. .. „	642,882	—
1923 („ 441) .. .. „	776,151	—
Lineal yards of ditches dug and graded, *i.e.*, newly dug.—1921	5,438	—
1922	2,299	—
1923	4,991	—
Average frequency clearing ditches of grass—		
1921 (21½ Miles) about every 4·7 weeks		
1922 (22 „) „ „ 3·0 „		
1923 (22 „) „ „ 2·48 „		

11. INSPECTIONS AND PROSECUTIONS.

	1921	1922	1923
Number of Inspectors employed :—			
Native Sanitary Inspectors	7.6	9.0	9.0
Mosquito Finders	27.0	28.7	26.1
Number of House inspected	116,760	—	111,004
Number of Houses wherein Larvæ were found ..	(*See* Analy	sis of Sources	of Larvæ.)
Number of Notices served to remove conditions causing the breeding of Mosquitoes	135	12	210
Number of persons fined for having Mosquito Larvæ on premises	—	—	10
Number of Notices served to remove insanitary conditions on premises	—	—	57
Number of persons fined for not removing insanitary conditions after notice	—	—	Nil.
Number of Soda and Ærated Water Factories inspected. (Number of inspections not recorded.)	1	1	2

TABLE V.

METEOROLOGICAL RETURNS FOR THE YEAR 1923.

	Rainfall.	
	Amount in Inches.	Degree of Humidity.
January	2·46	Not recorded. (*See* Report of Director of Laboratory.)
February	·245	
March	2·005	
April	8·95	
May	3·91	
June	·67	
July	1·38	
August	2·29	
September ..	·27	
October	·38	
November.. ..	·47	
December	2·62	
Total ..	25·65	

INFECTIOUS DISEASES HOSPITAL, DAR-ES-SALAAM.

RETURNS OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1923.

Disease.	Remaining from 1922.	Number of Patients admitted during 1923.	Total number treated during the year 1923.	No. of Deaths
Chicken Pox	1	25	26	1*
Leprosy	5	14†	19	2‡§
Measles	—	1	1	—
Mumps	2	12‖	14	—
Tuberculosis of Lungs and Larynx..	—	1	1	—
Pyrexia: Unknown origin	—	2	2	—
Under observation	—	6	6	—
Stomatitis	—	1	1	—
Dermatitis	—	2	2	—
Total	8	64	72	3

* Peri-Urethral abscess confirmed by post portem.
† 3 cases transferred temporarily from Leper Settlement.
‡ Complicated by T.B. Lung.
§ Complicated by ankylostomiasis.
‖ Out of the 12 cases, 6 cases were notified by Medical Officer of Health.

EXTRACT FROM ANNUAL REPORT BY DR. A. I. MEEK, MEDICAL OFFICER OF HEALTH, TANGA.

District, TANGA. *Year*, 1923.

Meteorology.—Total Rainfall, 43·79 inches; Mean Temperature, 80·8° F.

(*Meteorological Return attached.*)

Number of Houses and Premises Inspected	65,895
Nuisances other than Mosquito and Fly Larvæ	109
(In addition to these, 50 collections of fly maggots were found.)	
Notices served	98
Prosecutions	28
Convictions	21

Infectious Diseases Notified in Tanga District :—

African Natives.—1. Small-pox 98 (deaths 10), *see* report attached.
2. Chicken-pox 23 (Tanga Gaol 21, Hospital 2).
3. Mumps 26 (Tanga Government School).

Number of recorded.—1. Births :—European 5, Native 1,047.
(Native birth rate 12·1).
2. Deaths :—European 7, Native 1,274, Asiatics 15.
(Native death rate 14·7.)

Personnel :—

1. European—M.O.H.	1
Sanitary Superintendents	2
2. Native Sanitary Inspectors	2 and 1 on Railway
Clerk	1
Vaccinators	2
Fundi	1
3. Sanitary Labourers—Headmen	4 and 1 on Railway
Town Labourers	110
Railway Labourers	29
4. Convict Labour	8·3 daily

General Notes as to how Sanitary Personnel have been employed :—

1. Town Labour—Grass Cutting	20
Road Cleaning	10
Special Gang (Drains, Cemeteries, etc.)	10
Mosquito Finders	7
Removal of Refuse (Carts, Trolleys, etc.)	30
Incinerators	8
Trolley Boys	2
Boat Boys	2
Office Boy	1
Native Area	20
2. Sanitation of Railway Premises	29
3. Convict Labour Conservancy	5
Grass Cutting, Burials, etc.	3·3

General Notes on Sanitary Condition of Station :—

Fairly well maintained throughout the year.

Anit-Mosquito Work :—

1. Premises Inspected		65,895
2. Number of Larvæ found		2,486
Culex	64·2 %	
Stegomyia	31·3 %	
Anopheles	0·5 %	
Others	4·0 %	
3. Number of Prosecutions		20
4. „ Convictions		15

Port Sanitation :—

1. Steamers boarded	152
2. Dhows boarded	732

Summary of other work done during the year :—

Number of Drains inspected and oiled	4,978
„ Cesspits and Soakage Pits inspected and oiled	35,374
„ Pools inspected and oiled	302
„ Wells inspected and oiled when necessary	3,256
„ Tanks and Barrels inspected and oiled	37,288
„ Areas inspected by Mosquito Finders	1,024
Linear feet of Ditches cleaned	552,640
„ of New Drains cut	11,360
Square yards of Grass, etc., cleared	1,474,200

Number of Pits or Excavations filled in		19
,, Collections of Fly Maggots found		50
,, New Pit Privies ordered to be dug		138
,, Cart loads of Refuse removed		10,034
Dumps of Rubbish removed		47
Number of Samples sent to Laboratory		1
,, Sick transported		7
,, Burials performed—European		4
Native		63
,, Loads of Cess removed by Cesspit Emptier		7
,, Trains inspected		115
,, Rats killed		2,064
,, Convicts supplied .. .. daily ..		8·3
,, Gallons of Paraffin issued (including Railway 120 gallons)..		167½
,, ,, Cresol used (including Railway 120 gallons) ..		164
Cattle inspected at the Slaughter House		4,733
Foodstuffs Condemned and Destroyed—Portions of Meat (including four whole carcasses) ..	1,172	
Tins of Food	1,248	
		2,420
Trenches filled in (linear feet)		150
Number of School Children inspected (not including sick parades) ..		3,600
Number of Sick Children inspected at School Dispensary (October—December) daily average		10

TANGA TOWNSHIP AUTHORITY.

The following list details the number of notices, permits, licences, etc., which were issued during the year 1923 after the necessary inspections of premises, etc., were carried out :—

1. Permits to repair buildings	25
2. Permits to build new houses	18
3. Demolition of building notices	4
4. Permits to trim or cut down trees	6
5. Permits to collect stones and soil	11
6. Permits to erect electric plant	2
7. Permits for the transport of animals	3
8. Permits for lime washing of buildings	3
9. Bakery licences issued	4
10. Dairy licences issued	2
11. Soda water factory licences issued	1
12. Ice factory licences issued	1
13. Other notices served	6
14. Other inspections carried out	27
15. Meetings of the Township Authority held during the year	17

The following were the most important matters discussed and agreed upon at the meetings of the Authority :—

1. Kisesera to be site for storage of dangerous and non-dangerous petroleum, the plot to be subdivided into seven, reserving a right of way along the foreshore above high water mark.
2. Site for new incinerator to be on the municipal ground near Tanga Gaol. The building is now nearing completion.
3. Site for stray animals pound agreed to be on the municipal ground near gaol. The pound has been erected accordingly.
4. Plans for proposed new public market and surrounding layout were submitted by the Executive Engineer P.W.D. and Staff Surveyor respectively approved. The government land south of railway and west of Pangani road was chosen as the most suitable site.
5. It was decided that the native pombe shops should be centralised in an area on the Pangani Road.

6. The allocation of the northern half of the plot at the S.W. of School Street and Queen Street Junction for the erection of new P.W.D. buildings, was approved.
7. The Authority approved the allocation of the old laundry site for use as an Infectious Diseases Hospital.
8. Suitable sites for the erection of new Railway stores and Asiatic quarters were selected.
9. It was decided that a portion of land at Kisesera to the west of the slaughter house be allotted for carrying on of offensive trades, *e.g.*, camel oil mills, tanneries, etc.
10. It was agreed that street obstructions caused by dumping of building material should not exceed 50 cubic yards and be laid so as to cause least possible obstruction. Licences for these temporary obstructions to be issued by the Executive Officer countersigned by the District Superintendent of Police and Prisons.
11. The new boundary of the Township as put forward by the Staff Surveyor, Tanga, was approved of.
12. Rules as regards the maintaining of the public markets in a proper state of cleanliness were drawn up by the Executive Officer and approved by the Authority. Disciplinary control of markets was turned over to the District Superintendent of Police and Prisons.
13. The suggestion to appoint a Native Building Inspector when funds are available was approved of.
14. It was agreed that the Executive Engineer be invited to draw up an estimate for the drainage of swamp at Chumbageni.
15. The question of provision of a Magazine for Tanga was discussed and approved of and the Executive Engineer P.W.D. was invited to make a plan of same.
16. An effort was made to enforce the protection of grain stores from rats in accordance with Rule 45.
17. The Authority endeavoured to control the growing of coconut palms within the Township, *vide* Rule 16. The Authority recommended that a clause should be inserted in Township Rules in the lease of Government palms empowering the Authority to reduce the number of palms at any time during the running of the lease.

METEOROLOGICAL RETURN FOR 1923.

TANGA TOWNSHIP.

Total Rainfall for 1923	43.79 inches.
Maximum Monthly Rainfall (April)	10.79 ,,
Maximum Daily Rainfall (April 4th)	3.42 ,,
Maximum Temperature for 1923 (March 14th) ...	88.8° F.
Minimum Temperature for 1923 (August 1st)	73.70°F.
Mean Temperature for 1923	80.8° F.

Month.	RAINFALL IN INCHES.		Date.	TEMPERATURE F.		Mean.
	Total.	Heaviest Fall.		Maximum.	Minimum.	
January ..	3·11	1·29	8th	87·4	78·8	83·3
February ..	0·06	0·03	15th	88·3	80·6	84·1
March ..	3·52	2·24	28th	88·8	78·4	84·7
April ..	10·79	3·42	4th	87·4	75·3	81·8
May ..	4·03	1·49	26th	86·9	77·0	81·3
June ..	3·06	1·46	24th	82·0	75·7	79·0
July ..	4·27	2·13	31st	83·6	75·2	77·9
August ..	5·62	3·18	4th	84·3	73·7	76·4
September ..	2·09	1·42	2nd	82·0	73·9	78·0
October ..	1·12	0·41	17th	86·3	76·6	80·2
November ..	2·48	0·72	8th	85·6	77·9	81·8
December ..	3·64	1·58	3rd	86·9	77·7	82·2

VACCINATION REPORT FOR THE YEAR 1923.

Month.	Number Vaccinated.	Number Successful.	Number Modified.	Number Failures.	Number not seen again.
January	55	18	13	9	15
February	1,530	448	443	604	35
March	3,733	638	870	1,295	930
April	796	—	—	—	796
May	592	—	—	—	592
June	495	91	60	49	295
July	256	1	2	12	241
August	1,546	442	—	352	752
September ..	1,586	397	—	121	1,068
October	1,867	334	—	166	1,367
November	863	—	—	—	863
December	1,293	—	—	—	1,293
Total ..	14,612	2,369	1,388	2,608	8,247

3,757 Successful and Modified successful results out of 6,365 vaccinations inspected, *i.e.*, successful and modified.

PREVENTIVE MEASURES.

1. *Anti-Mosquito Work.*—The usual routine work of inspection, oiling and disinfecting, drain clearing and digging, filling in of pits, etc., was carried out during the year, as per statistics shewn above.

A general slackness on the part of householders in failing to co-operate with the Department, in carrying out the preventive measures expected of them, and also the fact that the rainfall was more or less evenly distributed throughout the year, necessitated the detailing of a larger number of mosquito-finders than was formerly employed, with the resulting large number of larvæ collections quoted above. Twenty prosecutions on European, Asiatic and Native offenders were conducted, with marked benefit, and towards the end of the year it was observed that the bulk of larvæ collections were obtained from unoccupied open spaces of land throughout the town.

The percentage of anopheline collections (0.5) obtained is much smaller than that of previous year.

The large swamp which formerly existed at the hospital has been practically filled in during the year, the ashes from the incinerators having been used for this purpose.

The Kisesera swamp referred to elsewhere has been periodically oiled and cresoled pending the introduction of a proper drainage system.

The condition of drainage in general is detailed in another part of the Report.

The regular oiling of *all* cesspits and soakage pits throughout the town has been rigorously carried out, the new cesspit emptier being used for the transport of disinfectant for this purpose, when not in use otherwise.

The removal of dumps of old iron, etc., from the vicinity of the Railway Station and Customs to an isolated position up the line has done much to minimise the number of mosquito breeding places in these parts of the town.

2. *Small-pox.*—In January the outbreak in Buiti Sub-district of 1922 continued with the occurrence of nine fresh cases, and a vaccinator was sent out to complete the vaccinating campaign previously carried out in that district. Eighteen fresh cases were reported in February.

In March small-pox was reported in Kenya Colony near Moa, a vaccinator was at once detailed for work at Moa, but a case of small-pox was notified in that district in April, followed by cases in Tanga during May, June and July. During these months vaccination work was carried out in the affected districts.

In July an outbreak of ten cases with two deaths was reported at Buiti. This outbreak is difficult to understand. The population of Buiti is 9,155. During the last two and half years over 17,000 vaccinations have been reported performed there, 7,922 with successful results. Buiti is a wild out-district and it is fairly certain that on some occasions the vaccinators have evaded their duty from fear, and brought in false returns.* It is, however, the case that at least 6,000 vaccinations were performed under the direct supervision of a European Sanitary Superintendent who visited the district in 1922.

The remainder of the cases were reported at Moa, Tanga, Tangata and Pongwe, numbers detailed above, and three cases remained at the Sub-District of Tangata on the 31st of December.

The total number of cases reported for the whole district was 98, with 10 deaths, these statistics being practically level with those for 1922, the improvement on 1921 figures being maintained.

The fact that during the last three years nearly 120,000 vaccinations have been performed with approximately 70 per cent. of successful results, in this district, with its population of 86,404, and in spite of this, outbreaks of small-pox continue to occur, seems to indicate that more attention must be paid to surrounding districts and to the vaccinations of travellers; with this in view Dr. Meek, the M.O.H., visited Usambara district adjoining Buiti, and ascertained that as many as 95 per cent. of the natives in this vicinity are unprotected against Small-pox. A vaccinator has been detailed for work in this district. Particular attention is also being paid to the inspection and vaccination where necessary, of all travellers arriving at Tanga by ship or dhow, a vaccinator accompanying the M.O.H. always when a ship is being cleared—all travellers leaving the town are also inspected for the same purpose.

3. *Ankylostomiasis and Intestinal Infective Diseases.*—The usual routine work with regard to latrine inspections, removal of refuse, anti-fly maggot work, inspection of food, supervision of water supply, etc., was carried out during the year as per statistics shewn above.

All the sumps in connection with wells in the native village have been filled in with rock so as to act as soakage pits. The polluted contents of these sumps formerly provided the natives with an exceedingly objectionable water supply.

The water supply in the native town is unsatisfactory and many good wells are rendered useless on account of defective windlasses and chains. We hope to have this remedied in the near future when the Executive Engineer obtains the water vote.

Much remains to be done in the out-districts with regard to the inspection of the smaller townships with a view to the improvement of sanitary conditions at these places, and we hope to be able to apply European sanitary supervision during the ensuing year. We were unable to do this last year on account of the shortage of European staff.

With regard to educational propaganda, the class in hygiene now being conducted at the Tanga Government School gives promise of good results for the future.

4. *Bilharziasis.*—Since the introduction of the dispensary work at the Tanga Government School it has been observed that a considerable number of school children act as hosts for the organism of this disease. During the months of November and December as many as forty well-marked cases were detected. Two likely sources of infection are at present under observation and several samples suspected molluses have been forwarded to the Director of Laboratory at Dar-es-Salaam for examination. Definite information is not yet to hand. Meantime, the suspected pools are being periodically treated with disinfectant.

5. *Yaws.*—The incidence of this disease in Tanga township itself is not great, but reports from mission dispensaries up country seem to indicate that it provides a problem for preventive medicine at some of these out-stations. The constant recurrence of re-infected cases suggests that more firm measures will have to be taken with regard to the isolation of natives suffering from this disease, and the better carrying out of general sanitary measures at the villages concerned.

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* *See* report of Dr. Nixon's visit inspection on page 95.

NOTES OF SANITARY IMPROVEMENTS AND OTHER WORK DONE IN THE TOWNSHIP DURING THE YEAR.

1. *New European Bungalows.*

Three stone bungalows with tiled roofs have been built on the south side of Mission Street.

Each house has an open verandah back and front, a mosquito proofed side verandah, two living rooms, two store rooms and a combined bathroom and w.c.

There is an outbuilding attached to each house containing a kitchen, a boys' room and boys' w.c.

Water is laid on to each house and the soil and waste pipes drain to a permeable pit which is deep and well constructed. A washing slab is provided, draining into a separate soakage pit. Another pit has also been constructed immediately outside the boys' w.c.

2. *Drainage.*

Mission Drain.—This is a large surface drain in Mission Street, a considerable length of which was destroyed by storm water during the military occupation. Subsequently rains have converted the lower part of the drain into an irregular ravine. As a temporary measure an arrangement of corrugated iron on trestles has been erected to carry the water over the worst part of the gap. The Public Works Department are constructing a concrete covered drain on the lower level, with a vertical shaft at the broken point in Mission Street. The parallel ravine due to the storm water from Plantation Street is being gradually filled up with tree trunks, etc. It is feared that a considerable proportion of the funds recently alloted for drainage improvements will be spent to carry out the above work.

11,360 linear feet of new drains were dug by the Health Department during the year—otherwise the drainage system throughout the township remains as formerly.

A scheme for the better drainage of the native village is an urgent necessity. The drainage at several points in the European town also requires attention, *e.g.*, a new drain is required for the west end of Market Street, a more permanent built drain for School Street, a connection from this to the drainage in King Street, several culverts are required and practically all drains in the European town require re-levelling.

3. *Slaughter-house.*

The buildings are situated on the Kisesera foreshore. The larger of two buildings is used for the slaughter of cattle, the smaller for pigs. Both buildings are in fairly sound condition. Minor repairs have been carried out during the year by the Public Works Department. A small room attached to the larger building is used for storing refuse bins, cleaning materials, etc.

The slaughter-house is equipped with a boiler to provide hot water for scouring of carcases. As very few pigs are slaughtered in the township, this boiler has been in use during the year for preparing salt from salt spring water available in the vicinity, the salt so obtained being used in the public latrines, etc., when cresol or other disinfectant were not available.

A new three-ring well was recently sunk by the Public Works Department to provide water for cleansing purposes. A pump and hose are to be added.

The present sleeper incinerator for destroying gut contents and offal is somewhat unsatisfactory. A new incinerator is shortly to be erected here by the Public Works Department.

A wire superstructure is to be added to the cattle pen to allow cattle to be kept overnight without fear of carnivora obtaining an entrance.

The butchers do rough cleaning after slaughter. Two Health Department boys are on permanently for cleaning, tending an incinerator and preparing salt. A European Sanitary Superintendent inspects daily, and a native of the Veterinary Department takes smears, to be sent for examination.

About 80 per cent. of the animals have been found to be infected with the organism of East Coast Fever, while liver flukes are common.

The present method of transport of meat from the slaughter-house is unsatisfactory—it is carried on poles by the natives through the town. It is desirable that the trolley lines should be extended to the slaughter-house and the meat carried in trolleys constructed for the purpose. The extended line would also serve the go-down plots for storage of petroleum, east of the slaughter-house.

4. *Cemeteries.*

The work of clearing the five cemeteries (European, Roman Catholic, British Memorial, German Protestant, and Native) and isolated graves throughout the town was carried out by the Health Department during the year. The number of European and Native burials performed is detailed above.

An attempt was made to lay out the graves in the native cemetery in a more orderly fashion than formerly, and this has been carried out with success during the year. A sanitary boy is kept permanently on this work and he also keeps the cemetery in a clean condition.

New Native Christian Cemetery.—A plot of land at Kwaminchi was purchased by native Christians living in Tanga, and has been laid out as a native Christian cemetery. The site was inspected by the M.O.H. and approved for the purpose.

The question of the better conducting of European funerals was gone into and funds were obtained by subscription from European residents to cover the cost of purchasing a suitable bier for carrying the coffin into the cemetery and obtaining uniforms for the sanitary boys working in connection with the burials.

5. *Infectious Diseases Hospital.*

The site of the old German laundry at Kisesera was selected as the most suitable for the purpose of erecting an infectious diseases hospital, owing to the difficulties re transport and water supply for the island site formerly proposed not having been satisfactorily solved. The laundry building has been disused since the occupation. It is of good construction and at a small expense could be converted into an isolation hospital. There are no other buildings in the immediate vicinity, and the situation is more convenient for supervision than the island site.

As it was the original intention, however, to renovate the building for the purpose formerly employed, we consider that some alternative laundry accommodation should be provided. The only public laundry accommodation at present available in the township consists of several stagnant pools of fresh water replenished by a small rivulet near the township boundary at Chumbageni. Between twenty and thirty dhobies use this site daily for the washing of clothes and three hundred or more school children also use these pools periodically for the same purpose. Mosquito larvæ abound in this situation and the pools are also suspected as a source of Bilharziasis infection. We believe that this area could be drained into the sea, which is reasonably near, and a collecting tank and washing slab erected at reasonable cost to provide suitable washing facilities and at the same time wipe out the large swamp at Kisesera, which is apparently fed by the same source.

6. *Wells.*

Tanga is dependent on wells for water supply. The existing wells are insufficient in number and many are useless owing to defective windlasses and chains. The water shortage has led to natives digging private wells in their own compounds, suitable for mosquito breeding and surface soil contamination.

The necessary repairs to the public wells are to be put in hand when the Executive Engineer obtains the water supply vote.

The new well sunk in Ngamiani has unfortunately had to be temporarily abandoned, as apparently the catchment area is at a considerable depth from the surface.

The dangerous overflow sumps in connection with the wells in Ngamiani have been filled in with rock in order to function as soakage pits and prevent drowning accidents or the drinking of their polluted contents.

7. *Incinerators.*

The town refuse up to the present time has been burnt on sleeper incinerators, the main station being in School Street, a smaller station at Ngamiani and a single incinerator at the slaughter-house.

A modern stone incinerator has been erected at the School Street site, and is now in use. The combustion of refuse is both speedy and thorough and we are now enabled to completely dispose of the rubbish collected from the European area from day to day.

Smaller stone incinerators are to be built at Ngamiani and slaughter-house, if funds permit.

The products of the incinerators are used for filling in the hospital swamp and other depressions in the town.

8. *Markets.*

The European Market is in Market Square in the centre of the European town. The site is unsatisfactory as the Square has European residences on all sides, meat and other produce is brought in and refuse is taken out through the European area.

The native market is in Ngamiani. The site is convenient, but cramped, and there is no room for expansion.

Both buildings require extensive repair to their roofs, timber, etc. This repair is being held over pending the decision as to the construction of a new combined market.

A design has been submitted by the Executive Engineer for a new market at a cost of £3,300.

The most suitable site is on the Government land south of the railway and west of Pangani Road. The plan of a suitable lay-out has been submitted by the Staff Surveyor, Tanga.

The fish market is on the foreshore between the Customs and Police Boma.

An improved system for the cleansing of the public markets was advised and brought into operation. With the approval of the Political Department, authority was obtained to have the market closed down each day at 5 p.m., thus enabling the sanitary boys to remove all articles from the market and have the place thoroughly washed out daily. This was done under the supervision of the European Sanitary Superintendent. A great improvement in cleanliness has resulted. A more orderly arrangement than formerly of coffee stalls and fruit and vegetable stances has also been observed, special sections suitably subdivided being provided for each class of produce.

9. *Gaol and Police Lines.*

The gaol is clean and well kept, but suffers from lack of yard space and accommodation for female prisoners, a poorly constructed kitchen and rather unsatisfactory latrines.

These difficulties can only be solved by an enlargement scheme, and plans have been submitted for reconstruction by demolition of the back section of the prison, including the kitchen and latrines and the building of new lines some thirty feet back.

During the year improvements have been carried out in prison drainage by reconstruction of soakage pits, but the present pan-system of latrines is unsatisfactory, and a trough latrine system water flushed, emptying into a septic tank is considered desirable.

The present food store is unsatisfactory and rat-proof bins would improve matters considerably.

The Askari lines are usually well kept. Additional quarters are in course of erection.

10. *New Health Offices.*

The new premises in King Street were taken over in March and have been found satisfactory. The accommodation includes suitable rooms for M.O.H., Sanitary Superintendents and clerks, room for vaccination and mosquito work, an apartment for work relating to the Township Authority, a reception room for natives awaiting examination, vaccination, etc., and a large go-down for stores. The Health Department carts and other stores are accommodated in two sheds on the municipal ground near the Askari Lines.

One Sanitary Superintendent is provided with suitable quarters above the Health Office.

11. *Tanga Government School.*

In October a dispensary was started at the school with a view to the treatment of children suffering from minor ailments. This was done in order to save a great deal of time formerly spent by pupils in going to and from the hospital for dressings, etc., the control of sick boys on the premises also assisting the schoolmaster in maintaining a better discipline in the school. The dispensary is under the direction of the M.O.H., who visits the school daily and sees the sick, and is assisted by a native dresser.

The need for training boys to assist in the work of dressers became apparent and this led on to the idea of forming a small class of intelligent boys for instruction in elementary hygiene and first aid. The object in view is to catch suitable boys while they are young and combine the medical training with the normal school work, to produce after three or four years an intelligent English speaking boy who has acquired sufficient proficiency in the work of a native hospital dresser or sanitary inspector, to enable the Medical and Sanitation Department to take him on in any of these capacities or at least for a much shorter probationary period than would otherwise be necessary, thereby saving the Department a considerable amount of expense.

The question of obtaining suitable text books, charts, etc., will have to be gone into and a standardised course of instruction, drawn up to bring the course more or less in line with similar courses conducted elsewhere in the Territory, will probably be advisable. Meantime, simple lessons in elementary hygiene, etc., and practical demonstrations in First Aid work are being given the boys under training by the M.O.H. in the afternoons, while during the forenoons they go on with their normal school work. The Head Master, Mr. Foster, is lending every assistance possible in connection with the dispensary and class work.

12. *Tanga Railway Premises.*

The sanitation of the premises at Tanga station is satisfactory. The transfer of dumps of refuse, old iron, etc., from Tanga station to an isolated position up the line has done much to obviate the existence of mosquito breeding places formerly prevalent in the vicinity of the station.

The lack of a European Sanitary Inspector on railways was felt in relation to the sanitation of stations on the line and also the delay in procuring of funds for the remedy of sanitary defects in stationmasters' quarters and provision of adequate latrine accommodation, resulted in rather an unsatisfactory condition with regard to sanitation at many of the stations. Most of these defects had, however, been taken on hand by the end of the year.

The existence of so many sump and pit latrines, the type most favoured by the Railway Department, present a problem with regard to the extensive breeding places for fly maggots thus afforded; and we have always advocated that, where possible, the pan system of latrine with incinerator should be installed.

13. *Tanga Hospital.*

Improvements to premises were carried out during the year, notably the erection of a Mortuary and Post-Mortem Room, improvements to the Goanese Ward with the provision of bathing and latrine accommodation and the installation of the new quarters for the Nursing Staff.

The water supply of the hospital is unsatisfactory and requires attention.

14. *Tanga Public Latrines.*

These pan latrines consist of three roughly constructed corrugated iron enclosures unroofed and without drainage. To minimise the occurrence of nuisance, a thick layer of sea sand is spread over the floors and frequently renewed and sand provided in a box for applying to excreta in the pans. The latrines situated on the foreshore, near the Post Office, and in School Street, are insufficient in number, and a better type of latrine is desirable.

During the year a properly constructed pan latrine with water flushed urinal and bathing accommodation, suitably drained, was installed at the Tanga Government School.

A pan latrine was also erected at the Customs Compound.

15. *Housing—Indian Area.*

This area is in a very unsatisfactory condition, and in the near future the Township Rules will have to be rigorously applied to remedy the serious defects *re* sanitation with regard to overcrowding, construction of cesspits, and other items.

Native Area.—A considerable number of old empty houses, the owners of which cannot be traced, require demolishing. The Health Department has not the labour to carry out this work. Convict labour might be quite usefully employed in this work (at the end of the year all convict labour on routine work, such as conservancy and grass cutting, was dispensed with as it was considered that such work could be much more satisfactorily carried out by the Health Department staff).

A considerable number of applications have been received from occupants to convert the verandahs of their houses into shops. As these shops are a source of revenue, no objection was raised, but the Township Rules affecting these verandahs were strictly applied.

16. *Collection and Disposal of Household Refuse—Native Area.*

The present system in the native area is very unsatisfactory. There are two carts employed daily collecting refuse in the area. The carts are very heavy and cumbersome, four boys are employed on each cart, the roads are very sandy and in most places are quite inaccessable, so that it is practically impossible to maintain the area in proper sanitary condition.

In places where it is impossible for the carts to visit, it is the practice for the natives either to bury the refuse in a great pit or in the dry weather to burn it. Both these methods are unsatisfactory, as when pits are dug it is usually months before they become full and they provide suitable places for the breeding of fly maggots and other nuisances, furthermore, when indiscriminate burning is resorted to, grave danger of setting fire to the neighbouring houses is experienced.

It is considered that it would be better to withdraw the carts and utilize them in the European area, where they could be used to advantage, and to employ donkeys on the work of collection in the native area. Probably six donkeys would suffice to clear the whole of the area daily. Each donkey could be provided with two large baskets slung across its back and could so gain easy access to all out of the way corners. The cost of maintaining the donkeys would be very little as there is plenty of fresh green grass to be had, and only a small amount of mealies would require to be purchased each month. The money paid to the two extra labourers at present employed on the carts would suffice to pay for the upkeep of the animals. Suitable accommodation is available for housing the animals.

The old type of open slow combustion incinerators are still in use. These are very unsatisfactory during the wet season, but we hope to have a properly constructed stone-built incinerator in use in the near future.

REPORT ON THE SANITATION OF TABORA BY DR. J. G. MCNAUGHTON, ACTING S.M.O., TABORA.

III. SANITATION.

1. ADMINISTRATION.

The Sanitation Staff consists of :—

(*a*) One European Sanitary Superintendent.
(*b*) Two Native Sanitary Inspectors.
(*c*) Sanitary Labourers, whose number varies from fifty to seventy according to the season of the year.

2. PREVENTIVE MEASURES.

Two Native Sanitary Inspectors are constantly visiting native houses and their surroundings, looking out for breeding places of mosquitoes. Where possible, standing pools are drained, and where this is not practicable, the pools are oiled, *i.e.*, in the township itself.

Arrangements are being made for the Native Sanitary Inspectors, under the supervision of the Sanitary Superintendent, to visit the boys' school at least once a week, and to say a few words about the spread of disease, both by means of mosquitoes and by dirt.

3. SEWAGE DISPOSAL AMONGST THE NATIVES.

The custom here is to dig a pit, 2 or 3 feet deep, at the rear of the house. The opening is made small ; perhaps about 6 inches in diameter. This pit is used as a latrine, and when it becomes offensive, or even before that, a fresh one is made in a new place. I have frequently examined these "choo pits," and have never found them offensive or likely to be a menace to the public health.

Appended are Sanitary Superintendent Owen's tables concerning the work of the Sanitation Department.

4. INFECTIOUS DISEASES.

Two cases of bilharziasis have been seen. Both were imported; one occurred in a Nyasaland native, and the other in an Arab from Muscat.

Small-pox is endemic, but in the past year the epidemics have been small. Twelve small outbreaks occurred, with 149 cases and 38 deaths. Seven of these epidemics were in the Kahama district, with 136 cases and 38 deaths.

Two vaccinators have been at work, and over 9,500 vaccinations have been performed. The native population of this district generally is fairly well vaccinated.

During the year I have examined the arms of 2,719 casual natives. Of these, 1,488 had been vaccinated, or were otherwise protected from Small-pox, a percentage of 54.

When Small-pox occurs in a district, the Sultan isolates the patient or patients, segregates the contacts, and reports the matter to the nearest white officer. He, in turn, reports to me; a vaccinator is sent, who vaccinates all the contacts, and also takes the opportunity of vaccinating all other young people found unvaccinated.

Venereal Diseases.

These, as in former years, are responsible for a considerable amount of the sickness amongst the natives. Syphilis, in my opinion, is a good deal to blame for the large infantile death rate.

With the assistance of the Senior Commissioner and the Liwali of Tabora, I am having a pamphlet on Syphilis distributed among the natives, calling attention to the results of the disease, and asking natives affected to come to the hospital for treatment. It is also suggested that a few remarks *re* V.D. might be made to groups of natives by the Senior Medical Officer. In this connection it is remarkable that the men examined as labour recruits during the past year showed an infection of less than 1 per cent. of V.D. This freedom from these diseases is not borne out by the admissions to hospital. These diseases are probably more common in Tabora itself and in some of the sub-districts than in the areas from which labour recruits are drawn.

TABLE III.

Return of Statistics of Population for the Year 1923.

Number of Births during the year	5 Europeans.
,, Deaths ,, ...	1 European.
,, Immigrants ,, ...	Nil Europeans.
,, Emigrants ,, ...	,, ,,
,, Inhabitants ,, ...	105 ,,

Statistics for Africans and Asiatics are not available.

TABLE IV.

Summary of routine Sanitary Work done during the year, in the Town of Tabora.

1. Approximate area .. 1,056,500 square yards.—Proclaimed Open Spaces 3
2. Population .. .. 518,100 (of whole District), 19,500 (Town).
3. Housing .. .. Number of Houses occupied by Europeans .. 69
   ,, ,, ,, Natives 4,900
   ,, Huts (included in number of Native Houses).
4. Erection of new Buildings during the year.
   Number of Houses built without sanction .. .. Nil.
   ,, Huts ,, ,, ,, ... Nil.
   Action taken.—Prosecutions.—Houses, 0; Huts, 0; Additions 1.
5. Latrines.—

	For Males.		For Females.	
Public Latrines.—	No.	No. of Seats.	No.	No. of Seats.
1922	6	25	4	20
1923	7	27	5	22
New Public Latrines erected.—				
1922	2	21	1	2
1923	1	2	1	2

Private Latrines, 1923 108

Average number of pails of night-soil removed daily	108
,, ,, soiled pails removed, and clean pails substituted	108
Number of night-soil Men employed to clean Latrines and remove excreta	6
Number of Cesspools	7
,, ,, cleaned	1
,, new Cesspools constructed	1
,, old Cesspools abolished	2

6. Removal of Refuse, 1923.—

Number of dustbins	36
,, carts at work daily, to remove refuse from streets	2
Amount of refuse removed daily (cart-loads)	16
Number of carts at work daily to remove refuse from yards and premises	2
Amount of refuse removed daily from yards and premises (cart-loads)	20
Number of Men employed for moving refuse	10

7. Mode of Disposal of Excreta, Refuse and Offal, 1923.—

Daily average number of pails of excreta burned	230
,, ,, ,, cart-loads of refuse burned	42
,, ,, ,, ,, ,, buried (incombustible)	3
,, ,, ,, cart-loads of slaughter-house and market offal trenched	4

8. Daily average number of cart-loads of tin cans, bottles, broken crockery and other incombustible material removed from Houses, Huts and Compounds, in 1923	3

9. Water Supply.—

Pipe borne water.—

Source :—Kidete wells ; constant and unlimited supply	5 wells.
Number of stand pipes along roads	2
,, ,, in Compounds and Houses	10
,, ,, near Kidete Well	3

Wells, Public.—

Number	20
,, with pumps protected against surface water	9
,, mosquito-protected	2

Wells, Private.—

Number	23
,, protected against surface water	18
,, mosquito-protected	—

Tanks, Public.—

Number mosquito-protected, and served by pumps	1
,, above ground	4
,, mosquito-protected	1
,, under ground	—

Tanks, Private.—

Number mosquito-protected	28
,, above ground	43
,, below ground, but not now in use	1

Nature of Tanks—

Wood	—
Cast iron	4
Corrugated or sheet iron	43
Concrete	—
Masonry cemented reservoir in Boma (empty)	1
Barrels	—

10. Drainage.—

Nature of Drainage in 1923.	Public.	Private.
Lineal yards of masonry drains	1,919	500
,, ,, reconstructed	150	—
,, ,, repaired	—	20
,, ,, of new drains constructed	1,419	—
,, ,, of earth drains or ditches cleaned	5,280	82
,, ,, of ditches dug and graded	3,520	—
Average frequency of clearing ditches of grass and sand, per month	Twice	Once

11. Inspections and Prosecutions in 1923.—

Number of Inspectors employed	2
,, houses inspected	15,511
,, houses where larvæ were found	197
,, notices served to remove conditions causing the breeding of larvæ	12
,, persons fined for having larvæ on premises	1
,, notices served to remove insanitary conditions on premises	45
,, persons fined for not removing insanitary conditions after notice	—
,, soda and ærated water factories inspected	4

12. New Works, etc.—

One new bungalow for K.A.R.'s, and one in course of erection.
New cess-pit and W.C.'s at European Hospital.
New concrete floors for two produce, and one pombe market.
Concreting of Market-master's office.
New well with pump, and water supply pipe, for slaughter-house.
New water main from Kidete to market (1,450 yards) with two stand pipes at market.
New roadside channel drains dug along both sides of eight streets and roads.
New well at Kidete.
New school.
New P.W.D. Depôt.

TABLE V.

Meteorological Return for the Year 1923.

Month.	Temperature in Degrees C.			Rainfall in mm.
	Shade Max.	Shade Min.	Range.	
January	29·4	17·5	11·9	120·6
February	29·9	17·7	12·2	234·7
March	29·6	18·4	11·2	145·2
April	29·7	17·9	11·8	281·6
May	27·0	18·7	8·3	86·7
June	27·8	15·5	12·3	Nil.
July	29·8	15·7	14·1	,,
August	28·6	17·1	11·5	,,
September	29·7	17·2	12·5	7·1
October	30·3	18·8	11·5	Nil.
November	34·0	16·3	17·7	61·8 (9th–30th)
December	30·8	15·7	15·1	371·3

SUMMARY OF ROUTINE SANITARY WORK DONE DURING THE YEAR IN THE TOWNS MOROGORO, KILWA, IRINGA, LINDI AND DODOMA.

	Total approximate area.	Total number of proclaimed open spaces.
1923	28½ square miles.	8

2. *Total Population.*

	Number of Europeans.		Number of Natives.		
	Males.	Females.	Males.	Females.	Total.
1923	115	37	11,466	9,245	20,863

3. *Housing.*

	Number occupied by Europeans.	Number occupied by Natives.
Number of Houses 1923 ..	66	1,351
Number of Huts 1923	—	2,770

4. *Erection of New Buildings during the Year.*

Number of Houses built without sanction	Nil.
Number of Huts built without sanction	Nil.

Action taken.

	Number of prosecutions.	
	Huts.	Houses.
1923	Nil.	Nil.

5. *Latrines.*

	For Males.		For Females.	
	Number.	Number of Seats.	Number.	Number of Seats.
Number of Public Latrines, 1923	22	126	20	91
Number of New Public Latrines erected during the year, 1923	3	16	3	14

*Number of Private Latrines	125
Average number of pails of night-soil removed daily	184
Average number of soiled pails removed and clean pails substituted ..	281
Number of night-soil men employed to clean Latrines and remove excreta ..	35
Number of cesspools	31
Number of cesspools cleansed	21
Number of new cesspools constructed during the year	—
Number of old cesspools abolished	2

6. *Removal of Refuse.*

Number of dustbins	875
Number of carts at work daily to remove refuse from streets..	6
Amount of refuse removed daily—cart-loads	21
Number of carts at work daily to remove refuse from yards and premises..	2
Amount of refuse removed daily from yards and premises—cart-loads ..	10
Number of men employed for moving refuse	23

In some of the towns householders have to make their own arrangements to remove household refuse to the incinerators.

7. *Mode of Disposal of Excreta, Refuse and Offal.*

	Daily average number of pails of excreta. 1923.	Daily average number of cart-loads of refuse. 1923.	Daily average number of cart-loads of Slaughter House and Market Offal. 1923.
Buried or trenched	—	3	½
Burnt	321	43	3
Thrown into sea	—	—	—

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* Does not include the Deep Pit Latrines which are provided in nearly all Native Houses or Huts.

8. *Average Daily Number of Cart-loads of Tin Cans, Bottles, Broken Crockery and other Incombustible Material removed from Houses, Huts and Compounds.*

1923	½

9. *Water Supply.*

Pipe-borne water.—	
Source (river, lake or spring) :—Spring	1
Number of stand-pipes along roads	1
Number of stand-pipes in Compounds and Houses	16
Wells, Public.—	
Number	9
Number with pumps protected against surface water and mosquito-protected	1
Wells, Private.—	
Number	112
Number protected against surface water and mosquito-protected	1
Tanks, Public.—	
Number mosquito-protected and served by pumps	3
Number above ground	16
Number mosquito-protected	10
Tanks, Private.—	
Number mosquito-protected	—
Number above ground	61
Number mosquito-protected	1
Nature of Tanks.—	
Iron	68
Concrete	23

At Iringa and Morogoro many natives obtain water direct from running rivers.

10. *Drainage.*

Nature of Drainage.	Public.	Private.
Masonry Drains.—		
Lineal yards of masonry drains, 1923	6,300	1,250
Lineal yards reconstructed during the year	Nil.	Nil.
Lineal yards repaired during the year	14	,,
Lineal yards of new drains constructed during the year	1,060	,,
Earth Drains or Ditches.—		
Number of linear yards of ditches cleaned	27,480	120
Number of linear yards of ditches dug and graded	5,848	Nil.
Average frequency clearing ditches of grass	Once Monthly.	

11. *Inspections and Prosecutions.*

	1923
Number of Inspectors employed	5
Number of Houses inspected	10,917
Number of Houses where larvæ were found	275
*Number of notices served to remove conditions causing the breeding of larvæ	—
Number of persons fined for having mosquito larvæ on premises	Nil
Number of notices served to remove insanitary conditions on premises	179
Number of persons fined for not removing insanitary conditions after notice	13
Number of Soda and Ærated Water Factories inspected	4

* Verbal notice given in each case.

VACCINATION.

155,000 doses of vaccine were issued by the Director of Laboratory during the year. The following table shows the results that have been reported from the various districts during 1923.

District.	Number Vaccinated.	Successful.	Modified.	Failed.	Not seen again.
NORTHERN AREA.					
Bukoba	723	20	—	1	703
Mwanza	3,600	1,936	924	729	13
Arusha	5,853	723	503	944	3,683
Usambara.. ..	2,694	1,668	260	375	391
Moshi	2,869	405	—	1,003	1,461
CENTRAL AREA.					
Tabora	14,375	6,235	1,349	1,512	5,282
Dodoma	9,466	6,655	401	707	1,703
Kondoa-Irangi ..	1,812	443	272	108	989
Morogoro	3,230	1,011	511	532	1,176
SOUTHERN AREA.					
Iringa	5,523	2,795	1,187	814	727
Mahenge	2,290	1,202	353	599	136
Songea	2,737	1,456	711	560	10
WESTERN AREA.					
Ujiji	777	231	15	215	316
Ufipa	1,878	624	144	799	311
Rungwe	620	321	—	186	213
COASTAL AREA.					
Tanga	14,234	2,369	1,724	2,250	7,891
Pangani	2,156	2,034	—	82	46
Bagamoyo ..	4,305	2,091	707	1,246	261
Dar-es-Salaam ..	817	—	—	—	817
Rufiji	4,047	2,127	973	933	1,014
Kilwa	7,162	3,822	215	1,012	2,113
Lindi	6,815	1,768	1,214	1,243	2,590

Malaria.

Malaria is general throughout the Territory. Even the healthiest stations have malarious country round them and infection is easily acquired when on tour. 329 Europeans and 2,973 non-Europeans were admitted as in-patients into Government hospitals during 1923. Two Europeans and 16 non-Europeans died of the disease.

219 Europeans and 15,220 non-Europeans were treated as out-patients. Certain stations report a considerable number of Tertian cases amongst their patients, but at Dar-es-Salaam, where the blood slides from the hospitals are examined at the Laboratory, 91.5 % were reported as sub-Tertian, and it is probable that errors of diagnosis, particularly by Sub-Assistant Surgeons and Compounders, are responsible for a large proportion of the cases returned as Tertian Malaria.

The following table shows the European malarial sickness throughout the Territory :—

District.	Area.	Sick rate per 1,000.
Moshi	Kilimanjaro	124
Arusha		
Bukoba	Lake Victoria	295
Mwanza		
Tukuyu	South-Western	220
Iringa		
Songea		
Namanyere		
Morogoro	Central Railway ..	410
Dodoma..		
Tabora		
Kigoma		
Tanga	Coastal	198
Pangani		
Bagamoyo		
Kilwa		
Lindi		
Dar-es-Salaam		

The greater incidence shown in the Central Railway Area during 1923 is mainly due to a large increase in the number of cases reported from Dodoma, owing to shortage of staff an Asiatic Compounder was in sole charge at Dodoma for a considerable portion of the year, and in consequence the figures submitted cannot be accepted as reliable.

Blackwater Fever.

Nineteen Europeans and sixteen non-Europeans were treated for Blackwater Fever during 1923, of these, four Europeans and three non-Europeans died, a death rate of 21 per cent. and 19 per cent. respectively.

Nine cases were treated in the European Hospital, Dar-es-Salaam, during the year. A brief account of each is as follows :—

1. Mr. C., British, a Railway Official, was admitted on 3rd May, 1923. He acquired Blackwater Fever on the train while proceeding from Tabora to Dar-es-Salaam, prior to going on leave. He had been resident in Tabora for many months. He proceeded to Europe after being in hospital for forty-six days. His blood examination on admission was negative. Hepatic enlargement and Bilious vomiting were a feature of his illness.

2. Mr. W., a non-Official, was admitted on 4th February 1923. He was transferred from Morogoro to Dar-es-Salaam with Blackwater Fever. For several days before transfer he had almost complete suppression of Urine—passing a few drachms daily. He recovered from suppression to die from a relapse of Malaria six days after admission—his blood showing sub-Tertian parasites during the relapse.

3. Master T, aged 13 years, the son of a non-Official in Dar-es-Salaam, was admitted Blackwater Fever on 21st June 1923. A feature of interest in his case was the fact that he had four relapses, in each case the relapse following the administration of Quinine. He was discharged after twenty-three days in hospital. His blood examination on admission showed the presence of Crescents.

4. Mr. F., a Goan cook, employed in Dar-es-Salaam, developed a very mild attack of Blackwater Fever. A feature in this case was that the patient walked to hospital after the onset of the disease. He was discharged cured after twenty-two days in hospital. His blood examination was negative for Malaria, but a person with whom he lived harboured Crescents.

5. Mr. V., Goan, a clerk employed in the Treasury, Dar-es-Salaam, developed Blackwater Fever on 5th July, 1923, and was discharged after twenty-seven days in hospital. He developed Blackwater Fever after special treatment with Quinidine for Malaria (sub-Tertian).

6. Mr. G., a clerk in the Public Works Department, Tabora, developed Blackwater Fever on 12th July, 1923, in Dar-es Salaam, two days after arrival from Tabora. He was discharged cured after thirty days. Blood examination was negative for Malaria.

7. Mr. R., Goan, non-Official, developed Blackwater Fever in Dar-es-Salaam on 24th August, 1923, two days after his arrival from Morogoro. He died on 27th August, 1923, from exhaustion following intense blood destruction. He had also developed suppression of Urine. His blood examination showed sub-Tertian parasites.

8. Mrs. B., a Syrian, developed a very mild attack of Blackwater Fever on 6th August, 1923, in Dar-es-Salaam. Her blood examination showed sub-Tertian parasites.

9. Mr. De J., Dutch, developed Blackwater Fever on 29th November, 1923. This patient was 62 years of age. He had one previous attack of Blackwater Fever 45 years earlier. He recovered. He developed the disease at a place 6 miles from Dar-es-Salaam. His blood examination was negative for Malaria.

Thus, of the above nine cases of Blackwater Fever, five were Europeans and four were Goan. Of the European cases one died (non-Official) and four recovered. Only one of the European patients was an Official.

Of the Goan cases, one died (non-Official) and three recovered. Two of the Goan cases were in Officials and two in non-Officials.

Of the total cases, four were contracted in Dar-es-Salaam, 2 in Morogoro, two in Tabora, and one in the neighbourhood of Dar-es-Salaam (5 miles distant).

All the patients were irregular Quinine takers.

Cases of Blackwater Fever at Tabora—Two European Officials.

1. Mr. H., Inspector of Police, in hospital from 23rd April 1923 to 23rd May, 1923.

A severe but straightforward case; was admitted on the 23rd April for Malaria; had a rigor, and hæmoglobinuria on the 24th. Urine cleared up within twenty-four hours, but the temperature reached 102° F. daily for two weeks. It was only on the exhibition of Quinine, grs. 30 daily, that it became normal. He made a good recovery.

2. Mr. E., District Engineer, Railways. In hospital 1st May, 1923 to 20th May, 1923.

A very mild case: his Urine cleared after twelve hours, but because of his temperature, which was considered malarial, he was given 2½ grs. of Quinine, four hourly, on May 3rd.

Hæmoglobinuria recurred on May 4th, but quickly cleared up again. On May 13th, Quinine, gr. 1 daily, increasing by gr. 1 every third day, was begun. Eventually he made a good recovery.

He had Blackwater Fever on the West Coast in (?) 1918 (Sierra Leone).

Two European—General Population.

One was a Greek who had hæmoglobinuria for only about eight hours after taking 10 grs. of Quinine for an attack of Malaria. With rest and rectal salines he had no recurrence, and made an uninterrupted recovery.

The other was Mrs. H., aged 19 years, born in Rhodesia. She had had many attacks of Malaria there, and during her 18 months' residence in Dar-es-Salaam had numerous mild attacks of Malaria, lasting about one day.

On admission she was very anæmic. In spite of rectal saline and glucose two hourly, and large quantities of soda-water, followed by soda and milk, the hæmoglobinuria continued for seven days.

On the third day she was given Calcium Chloride gr. 1 hypodermically, and on the same day she received, on two occasions, a transfusion of 50 ccs. of citrated blood.

On the fifth day (her temperature had remained at 103° F.) it was felt necessary to give her Quinine.

She took Ferri et Quin. Cit.	grs. X.
Liq. Strych.	m. IV.
Quin. Bihydroch.	grs. IIss., 4 hourly.

The dose of Strychnine was large, but she showed no signs of poisoning, and improved daily.

She was only partly conscious for three days and was not aware of the transfusion.

She eventually made a good recovery.

Three Asiatics.

Miss D., 15 years, Goanese, had a very mild attack. Hæmoglobinuria lasted only twelve hours, and cleared up with rectal salines, and she made an uneventful recovery.

Mr. X., 54, Goanese, had been fifteen years in the Territory without leave, and had suffered much from Malaria.

He had been drinking heavily for six weeks, and taking very little food before admission. No fever attack, but he " felt uneasy-like " on November 28th, and took grs. 10 of fluid Quinine. About 11 p.m. on the 29th, he had a rigor lasting one hour, and at midnight he passed some black water. Quite thirty hours had intervened between the taking of the Quinine and the rigor. He walked into the hospital at 3 p.m., on the 30th. His Urine after that contained only a trace of albumen, but he gradually sank, and died from heart failure on the morning of the 1st December.

Mr. G., 20, Indian, had suffered from many slight attacks of Malaria, and took " occasional small doses of Quinine."

On June 8th, at 7 a.m., he took a 5 gr. tabloid of Quinine bihydroch. He rested all that day, and at 3.30 p.m. he had a rigor of 2 hours' duration. At 5.30 p.m. he had passed Urine almost black.

He was admitted to hospital the same day at 9 p.m. Temperature on admission was 106° F. He was very obstreperous, delirious all the time, and his stomach could retain nothing. He was given rectal salines containing 10 per cent. glucose, but these were returned almost immediately, as he had to be forcibly restrained while they were given. Saline was also given subcutaneously, but so much struggling was caused that it was felt that the patient was receiving no benefit, because of the energy he himself expended. In the end, saline proctolysis (with a catheter introduced 10 inches into the rectum) was tried, but even this failed, as the catheter had to be held in situ, and the patient restrained at the same time.

The Urine did not clear up at all, and he died twenty-three hours after the onset of illness.

Twenty-three reports on the forms drawn up by the sub-committee of the Medical and Sanitary Advisory Committee have been received and are included in this Report as a separate Appendix.

REPORT ON MALARIA AND BLACKWATER FEVER BY T. H. SUFFERN, M.B., CH.B., B.A.O. (ROY. UNIV., IRELAND), SENIOR MEDICAL OFFICER, TANGA.

Among Europeans there were 54 cases of Malaria and no deaths.

Among Asiatics and Natives, 1,151 cases were diagnosed as Malaria. There were no deaths.

Among Europeans one case of Blackwater Fever was treated. The patient was a woman, aged 45 years, who was brought into hospital a week after suppression of urine had set in and died of Uræmia two days after admission. There was also a case shewn in the returns as Bright's disease. This was an interesting case of Nephritis or damaged kidneys following on Blackwater. The patient was a Dane, male, age 28 years. He got over his Blackwater and had no suppression. Apparently, however, he did not pick up and seven days after the Hæmoglobinuria ceased he became puffy and œdematous. He was sent down to hospital the same day. The patient was in the typical post-Blackwater condition of Anæmia and weakness. His eyes were almost closed with the œdema and he showed signs of Uræmia. He was passing daily over 30 ozs. of clear Urine containing a cloud of Albumen. Uræmic symptoms became marked and patient died four days after admission to hospital.

No cases of Blackwater were treated among Asiatics and Natives.

HUMAN TRYPANOSOMIASIS IN THE MWANZA DISTRICT.

The Principal Medical Officer visited the Sleeping Sickness area in September and October, 1923, and this summary is compiled from the record of his tour and from the reports received from time to time from Dr. Maclean, who, as Medical Officer of Mwanza, has visited the area as often as circumstances permitted. The country involved lies to the east of Mwanza and is well shown in the map published in Volume XIII., part 3 of the Bulletin of Entomological Research, to illustrate Mr. Swynnerton's paper published in that Journal. The only area in which, so far as is known, infection is acquired is approximately demarcated on the west and south by the Simiyu River as far as longitude 34° E., and on the east by a line drawn from this point northward to Itongo on the shores of Lake Victoria, these boundaries enclosing an area of about 150 square miles.

The fly infested forest has somewhat indefinite boundaries. It is a mass of forest or bush, continuous South and North-east with other "belts," and containing many large and small open spaces and some small hills projecting clear above the trees. From the main mass long finger-like extensions push their way out into the lower lying portions of the surrounding open country.

The inhabitants of the area live in family groups of two or three huts situated in "Bomas," fenced with Euphorbia. A village (Gunguli) consists of a number of Bomas spread over an area three or four miles square. These villages are now situated in open spaces. The deserted villages in the evacuated area were of the same type, but situated in open glades or small clearings closely surrounded by forest. This form of settlement gives great protection against the spread of any infectious disease, each family being segregated, though no doubt, a good deal of visiting takes place between members of the same village community.

Dr. Davey, during his tour, found the country rich in game. He states that the hard, sun-baked ground of the forest is a network of tracks of zebra, mpala, topi, giraffe, etc., and natives everywhere reported much damage done to crops by these animals. Game was uncommon in the open country, but at the time of his visit the country was dried up and large herds of cattle in extremely poor condition were finding difficulty in getting enough grazing to keep alive.

Near the Simiyu River the Principal Medical Officer set aside one day for shooting, and although he did not leave camp between the hours of 8.30 a.m. to 4.30 p.m., shot two zebra, four topi and a duiker. The shooting of the duiker disturbed more zebra and Dr. Davey states that at no time during his journey was he more fiercely attacked by tsetse than on this evening immediately after shooting the duiker. This agrees with Lamborn's remark with reference to G. morsitans that "It is a frequent experience that an abundance of flies usually "indicates the presence of game or that game has recently been in the neighbourhood." On three out of the four occasions on which Dr. Davey left camp in the evening with a rifle, zebra or antelope were seen. Mr. Edwards, the District Agricultural Officer, mentioned the abundance of game he had seen on a visit to the Simiyu River twelve months earlier, while Dr. Maclean, who has made frequent tours of the area at all seasons during the past eighteen months, has no doubt as to the abundance.

The Principal Medical Officer has laid great stress on the presence of considerable quantities of game and suggests that the scarcity of game—amounting to practical extermination—which Mr. Swynnerton reported must have been a purely temporary and local phenomenon. He is unable to accept the statement that the experiment in game destruction has been carried out in the area for practical purposes or that for lack of game fly has been driven to feed on man.

There were enormous numbers of cattle, sheep and goats in all the open country, and some were grazed in what appeared to be dangerous proximity to the fly area. Several herds were inspected and blood examinations made of a few beasts in poor condition; on no occasion were trypanosomes found.

Both Dr. Duke and Mr. Swynnerton were of opinion that starvation and ankylostomiasis were of importance as pre-disposing causes. No doubt the famine of 1919 caused a very considerable lowering of the vitality of the local population. Dr. Davey in his tour during September and October, 1923, found the natives, on the whole, well nourished. Anæmia, except amongst nursing mothers, was uncommon, and the population as a whole showed no signs of a heavy ankylostome infection. Of thirty persons selected as being anæmic, from natives collected for examination for Sleeping Sickness, only four showed Ankylostome ova. In the stools of twenty-seven apparently healthy individuals, no Ankylostome ova were found. It is admitted that these examinations were done under unfavourable circumstances, but the Principal Medical Officer is of opinion that the findings do not bear out the supposition that the incidence of Ankylostomiasis is heavy.

The observations made during 1923 confirm the opinion expressed in the Annual Report for 1922 that the vector of the disease is G. swynnertoni and the causal trypanosome T. rhodesiense.

The Principal Medical Officer states that the symptoms and course of the disease are those of the Nyasaland type of Sleeping Sickness though, possibly, somewhat less acute. The presence of numerous trypanosomes in the peripheral circulation is a feature common to both forms and distinguishes them from Sleeping Sickness of the Uganda type.

The incubation period appears to be a short one. Definite histories are always very difficult to obtain from native patients, but statements were frequently made that the illness commenced about a week or ten days after a journey into the forest where the patient was exposed to bites from tsetse flies.

The inset is often sudden with high fever. After the initial pyrexia has subsided it is not uncommon for the infected person to show no symptoms of disease for some weeks, although trypanosomes are numerous in the peripheral circulation. These persons have been referred to as "carriers" in some of the reports on the Mwanza outbreak and are a grave source of danger as they frequently make long journeys through fly-infested country before the disease causes them any inconvenience. Several of these cases were discovered when the outbreak was first investigated in 1922. Dr. Maclean has been able to follow up the majority of these, and reports that all had succumbed to the disease by October, 1923.

Forty cases were diagnosed microscopically between January and October, 1923. Careful enquiries were made into the previous history of thirty of these with a view to determining the source of infection. The Principal Medical Officer came to the conclusion that, in these cases, infection was acquired in the following manner:—

Journey through the forest shortly before onset of illness	11
Visiting forest for rope, hut poles, etc.	8
Hoeing gardens actually in the forest	7
Hoeing gardens on the borders of the forest	3
Living in the forest when illness commenced	1
	30

Of twenty-six cases, who dated the onset of their disease between January and October, 1923, nineteen stated that the earliest symptoms occurrd in the first four months of the year, a period during which much hoeing and planting is undertaken.

The distribution of the cases in 1922 and 1923 is of considerable interest. In 1922 the majority of the cases occurred in the Sultanates of Itilima, Sengerema and Usmao, in the neighbourhood of the Simiyu river and in the Ntusu Sultanate. In 1923 Itilima had two cases, Sengerema and Usmao none, while twenty-two were reported from Ntusu. In his June report Dr. Maclean states that the instructions issued by the Senior Commissioner on the subject of the removal of villages and gardens from the neighbourhood of the forest had been very imperfectly carried out in Ntusu and that villages were situated on the edge of the forest and that natives made frequent visits to their old gardens in fly-infested forest.

The removal of the natives from the neighbourhood of the forest appears to have checked the disease in Itilima, Sengerema and Usmao. There does not, however, seem to have been any marked diminution during 1923 in the total number of deaths from Sleeping Sickness in the whole of the infected area. During 1922, ninety-two deaths were attributed by the Medical Department to Sleeping Sickness. In 1923, Dr. Maclean diagnosed forty cases by microscopic examination, while the records of patients admitted to Sleeping Sickness camps leave little doubt that nine patients died of the disease before their blood was examined.

In comparing the totals of ninety-two and forty-nine for 1922 and 1923, Dr. Davey points out that it is certain that a number of cases in both years would never be brought to the notice of the Medical Department. During 1922, the removal of 5,000 natives from the fly forest must have discovered cases which would otherwise have escaped detection, moreover, during 1922, when the outbreak was first discovered, several persons were engaged in searching for cases. In 1923 the Sub-Assistant Surgon in charge of the camps had to be replaced by an Indian Compounder and pressure of work at Mwanza prevented Dr. Maclean visiting the area oftener than about once every three months, consequently it is probable that the percentage of cases recognised was higher during 1922 than in 1923.

The treatment given up to September, 1923, was, in the majority of cases, Soamin gr. XII., with intervals of ten days between injections. In a number of cases Trypanosomes disappeared from the peripheral circulation and the patients were allowed to leave the camp apparently in good health.

Several of these cases were re-examined by the Principal Medical Officer and Dr. Maclean during their tours. They had been released from hospital months before when trypanosomes could no longer be found in their blood. Dr. Davey states: "We failed to "find trypanosomes in the blood of all but one, but I fear they are slowly going downhill "and probably the trypanosomes have reached the central nervous system. Injection of "their blood into monkeys would, I think, give positive results."

The Principal Medical Officer took with him to the area a supply of Bayers 205. Three doses of one gramme each were given at intervals of ten and eighteen days. It is too early to form a definite opinion of the value of this treatment. Dr. Thomson, who has relieved Dr. Maclean, reports that trypanosomes have been found in two cases after their third and last injection of Bayers 205. The trypanosomes were scanty and both patients had showed very marked improvement after their injections. Instructions will be issued to increase the dose for well nourished patients, the dose being decreased in young or debilitated persons.

The Principal Medical Officer ends his report with certain conclusions and recommendations, a brief summary of which follows.

The disease has shown no tendency to assume true epidemic proportions and a violent epidemic need not be apprehended. The known distribution of Rhodesian Sleeping Sickness is gradually being extended, it seems probable that the disease will be found wherever game, infected with the brucei form of trypanosome, human beings and glossina of the morsitans type are brought into contact in large numbers. Other fly infested areas in the Territory should be investigated for Sleeping Sickness. The Medical Officer appointed for this duty should make every effort to gain the confidence of the natives, and with this object in view should travel independently and slowly and treat, as far as possible, all forms of illness.

The villages having been removed from the fly area it remains to prevent the native entering the forest except for necessary purposes, such as cutting large poles for house building. The Principal Medical Officer suggests that any native wishing to enter the forest should first obtain a permit from his Sultan and that guards should be placed on the cleared roads to arrest any person crossing the road and entering the forest without a permit.

The Maintenance of the Clearings along Main Roads.

The Principal Medical Officer suggests that some return for the expenditure of time and labour would be obtained by the natives if cotton or other crops were planted along the road sides. This would necessitate permission being given to the natives to destroy game damaging these plantations.

The Destruction of the Fly by Extension of Cultivation.

This demands a largely increased population, which can only be obtained by improvement in the general health of the natives. An increased Sanitation staff is necessary for the prevention of avoidable mortality and for the suppression of infectious diseases.

INFLUENZA.

Influenza was responsible for a considerable mortality in the Southern and South-Western districts of the Territory. In May, reports were received that epidemic Influenza of a moderately severe type was present near our southern borders and was spreading northwards. Instructions were issued to restrict the movement of natives as far as possible and funds provided to place guards on the roads.

A Departmental Circular containing advice on prevention and treatment was sent to all stations and supplies of vaccine despatched to the Medical Officers in charge of the more important towns. Although infection did reach the Territory from neighbouring countries, the resulting epidemic did not become formidable and was mainly confined to the districts immediately adjacent to the Southern and South Western boundaries. In these districts, 1,142 cases with 138 deaths occurred during the year.

In the other parts of the Territory only two outbreaks of any magnitude were reported. In the middle of the year a very mild epidemic broke out in the Moshi and Arusha districts. 402 cases with no deaths were notified.

The remaining outbreak began in November around Singida in the Dodoma district and continued up to the end of the year. The total number of cases and deaths reported up to the end of December was 359 and 151. The district is a scattered one and these figures are obtained almost entirely from native information. While is is probable that the number of deaths is fairly accurate, it is certain that large numbers of the milder cases would not be notified.

Throughout the whole Territory 1,933 cases with 291 deaths were reported during 1923.

PLAGUE.

A few cases of Plague occurred in the endemic areas of Singida and Shirati, a total of 39 cases with 26 deaths being reported throughout the year. In January, four fatal cases were reported from Musoma, a small Port on Lake Victoria, about 20 miles South of Shirati. The small township is well built and very clean, and the energetic measures instituted on the spot prevented any spread of the disease, no more cases being reported during the year. The origin of the outbreak could not be discovered. During the month of June suspicious deaths were reported from the neighbourhood of Shirati. The outbreak was investigated by Dr. Maclean, the Medical Officer of Mwanza. In his report he stated that the district affected covered an area of 10 to 12 square miles, the population being approximately 1,000. Scattered cases occurred throughout the whole of this area, one or two huts in each small village being infected while the inhabitants of the remaining houses escaped altogether. Dr. Maclean was informed by the local natives that a considerable mortality amongst the rat population took place about one month before the first human cases occurred. Although microscopical confirmation was not obtained, there seems to be no doubt that the disease was bubonic plague. Twenty cases with twelve deaths were reported.

Careful enquiries were made in order to trace the original source of infection. The local natives were of opinion that the disease was not introduced from the endemic areas over the Kenya border. The fact that the Sultanate of Busieri, stretching for a distance of approximately 9 miles between Shirati and the Kenya border was not affected, tends to show that the outbreak was of local origin. Under Dr. Maclean's directions, infected houses were unroofed, rat hunts organized, and a large proportion of the inhabitants inoculated. These measures were quite effective and no further cases were reported during the year. Dr. Maclean, in the course of his investigations, discovered that the local conception of "Plague" is a malignant abscess or boil, single or multiple, which is associated with malaise, and which, unless treated, generally ends fatally in a few days. The natives recognised two distinct forms; one is associated with a fatal disease in rats, usually shows abscess formation, but in rare cases causes a general disturbance only. The second form is recognised as being due to eating diseased meat, either raw or imperfectly cooked. The diseased animal, usually a goat, suffered from severe constitutional disturbance which ended fatally in about twenty-four hours. Dr. Maclean is of opinion that the first form is true bubonic plague, while the second is almost certainly anthrax. In the Singida endemic area, 15 cases with 10 deaths were reported throughout the year. The natives in this district live under the worst possible conditions. They do not build the ordinary type of hut thatched with grass which can be unroofed easily and the interior exposed to sunlight. The native dwellings are roofed with beaten earth and are occupied by human beings, cattle and goats, they are also used as grain stores. Efforts have been made for years, both by the German and British Administrative Officers, to induce these natives to improve the Sanitary conditions under which they live, but with little success. No great improvement can be expected in the immediate future, and it appears possible that this district will remain an endemic plague area. The natives appreciate the connection between rats and Plague and large numbers of rats have been destroyed during the year. A Sub-Assistant Surgeon is stationed in the district and makes frequent tours of inspection in the course of which 7,595 natives have been inoculated. At no period of the year did the disease show any signs of becoming Epidemic.

Two alarming outbreaks of fatal infectious disease occurred in March, 1923, one at Kiniassi, about 40 miles from Kondoa-Irangi and the other at Lolkissali, about 50 miles South-west of Arusha. Owing to the shortage of trained observers, neither of these outbreaks was properly investigated. The outbreak at Kiniassi was confined in two villages, Kiniassi and Maloya, situated about two miles apart, and, according to native reports, was preceded by a considerable mortality amongst the rat population. Two of the villagers had visited Arusha in order to earn their poll-tax and had worked for local traders by carrying loads between Arusha and Moshi. Shortly after their return home they both sickened and died after an illness of two days from what was stated to have been Pneumonia; nine days afterwards two contacts died after an illness which also lasted only two days. In all, 17 cases with 16 deaths occurred between March 9th and March 26th after which no further cases were reported. The majority of the patients had swellings in the groin, axilla or neck, which in the majority of cases did not suppurate. The one case that survived had a large abscess of the neck. The pus from this was examined microscopically, but no Plague bacilli were detected. Enquiries were made as to previous epidemics of a similar nature and the Administrative Officer reported: " It appears that 36 people died within a short period " during last year (about June, 1922). The issue was obscured by Influenza in the district " and further by the fact that the old men accused a resident of witchcraft. In their anxiety " to canceal their offence they did not report the number of deaths."

The epidemic of Lolkissali, which is about 60 miles North-east of Kiniassi occurred amongst an isolated Masai community living in three bomas in the native reserve. Between March 8th and March 20th forty persons were attacked, the symptoms in each case being fever, great prostration, cough with bloodstained sputum, and death on the 3rd or 4th day of the disease. The epidemic stopped as suddenly as it began and no further cases were reported after March 20th. It was most unfortunate that no Medical Officer was available to investigate this outbreak which presents several puzzling features. The Masai are a clannish tribe and do not welcome visitors. The affected villages were 15 miles from a road and many miles from any other natives, and it is difficult to understand how infection could be introduced from outside. The disease was stated to be intensely infectious, one visit to an infected hut being sufficient to contract the disease, yet in one of the bomas only two cases occurred. Two young men from here had visited an infected boma " to drink beer," they returned to their own homes, sickened and died, yet no other cases occurred in their village.

During the fortnight that the epidemic lasted, nearly half the total population of these villages died, every case being fatal. The Influenza pandemic of 1918 had taken a heavy toll of these natives and they were emphatic that the present outbreak was a different disease. There are very few rats in the Masai dwellings and the natives had not noticed any abnormal death rate amongst them. The Masai own large herds of cattle and live in intimate contact with them. No anthrax has been reported in this district for some years, but an outbreak of Contagious Bovine Pleuro-pneumonia was present at Lolkissali when this epidemic amongst human beings took place.

It appears probable that the deaths at Kiniassi and Maloya were due to Plague, but the causative agent at Lolkissali is obscure and the diagnosis seems to lie between Influenza, Pneumonic Plague, or some cattle disease which was conveyed to man. It was quite impossible at this time for the Medical Officer, Arusha, to leave his station and consequently no pathological material was available for examination. It is in cases such as this that the necessity of an increase in the staff of the Sanitation Branch becomes apparent.

During August, rats infected with Plague were found on Mombasa Island and a few cases of the disease occurred amongst natives. Strict orders were sent to all the seaports of the Territory that all dhows and vessels from Mombasa were to be examined carefully before the cargo could be landed. No cases of Plague, either in human beings or rats, have been detected up to the end of the year.

SMALL-POX.

The diminution in the Small-pox incidence throughout the Territory has continued during 1923. The figures for the last four years are given in the table below :—

Year	Cases.
1920	832
1921	1,267
1922	390 (150 doubtful cases, probably severe Chicken Pox.)
1923	217

Nearly half the cases during 1923 occurred in the Tanga district, 98 cases with 10 deaths being notified. The majority of these were reported from the neighbourhood of Bwiti and Moa, near the Kenya border. There was no serious epidemic, but sporadic cases occurred throughout the year. The district is somewhat inaccessible and it was considered possible that the native vaccinators stationed there were neglecting their duties. In consequence, Dr. Nixon, the Medical Officer of Health, Tanga, was instructed to pay a surprise visit and examine a number of natives in the infected area. The visit was made in August and 250 natives examined. These were residents of villages, situated both on the hills and in the plains, in which Small-pox had recently occurred.

The result of his examination is given below :—

Scars of successful vaccination	59 %
Scars of modified vaccination	21 %
Scars of previous Small-pox	4 %
No scars	16 %

Taking into account the inaccessibility of the district and the impossibility of adequate European supervision, this must be regarded as a satisfactory degree of protection.

A series of small outbreaks occurred in the north-western area of the Tabora district. Sixty-three cases with twelve deaths being reported during the year. (Reports received early in 1924 show that this outbreak was more severe than was at first reported, 149 cases with 38 deaths are stated to have occurred).

The remaining fifty-six cases were widely distributed throughout the Territory, the only part from which no cases were notified being the western area composed of the districts of Ujiji, Ufipa and Rungwe. The distribution is shewn in Table VIII., on p. 96 of this Report.

DYSENTERY.

Dysentery is distributed throughout the whole Territory, but is, as a general rule, of a mild type. The only station from which no cases were reported was Tunduru, a small station near the Southern border of the Territory, which is in charge of a Compounder.

A great improvement in the classification of Dysentery is noticeable since the distribution of a circular on the subject, drawn up with the assistance of the Director of the Laboratory, which was sent out to all stations early in 1923.

The total number of cases reported was 293, which can be classified thus :—

	Out-Patients.		*In-Patients.*			
	Europeans.	Non-Europeans.	Europeans.		Non-Europeans.	
			Cases.	Deaths.	Cases.	Deaths.
Amoebic ..	7	40	24	0	105	5
Bacillary ..	1	28	5	1	40	0
Unclassified ..	5	35	0	0	3	0
Total	13	103	29	1	148	5

The only European death took place at the European Hospital, Dar-es-Salaam. The patient was a non-official who was admitted in a very exhausted condition, having been without medical attention for a fortnight.

TABLE VIII.

Incidence of Principal Infectious Diseases during 1921, 1922 and 1923.

DISTRICT.	Small Pox.						C.S.M.						Population.
	1921		1922		1923		1921		1922		1923		
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
NORTHERN AREA.													
Bukoba	14	—	7	—	11	9	—	—	—	—	9	6	320,100
Mwanza	33	1	—	—	—	—	—	—	—	—	90	82	702,300
Arusha	3	—	6	2	2	—	6	—	—	—	1	1	97,700
Usambara	—	—	—	—	3	—	—	—	—	—	—	—	107,400
Moshi	—	—	—	—	—	—	6	3	—	—	1	—	158,200
CENTRAL AREA.													
Tabora	21	—	84	14	*63	12	1	—	4	4	—	—	502,100
Dodoma	—	—	3	2	1	—	1	1	—	—	—	—	270,900
Kondoa-Irangi	—	—	—	—	1	—	—	—	2	—	—	—	196,700
Morogoro	10	1	11	2	1	—	—	—	—	—	—	—	174,300
SOUTHERN AREA.													
Iringa	—	—	—	—	—	—	—	—	—	—	—	—	104,800
Mahenge	—	—	—	—	—	—	—	—	—	—	—	—	74,600
Songea	802	29	—	—	10	—	—	—	—	—	—	—	148,200
WESTERN AREA.													
Ujiji	—	—	13	5	—	—	—	—	1	1	—	—	139,500
Ufipa	—	—	—	—	—	—	—	—	—	—	—	—	93,600
Rungwe	48	7	—	—	—	—	—	—	—	—	—	—	237,200
COASTAL AREA.													
Tanga	281	91	84	14	98	10	—	—	—	—	—	—	86,700
Pangani	9	—	1	—	2	—	2	—	1	—	—	—	74,900
Bagamoyo	2	2	1	—	1	—	1	—	1	1	—	—	57,100
Dar-es-Salaam	3	—	1	—	—	—	—	—	—	—	—	—	149,100
Rufiji	—	—	150	2	8	—	—	—	—	—	—	—	83,200
Kilwa	—	—	9	4	13	2	—	—	—	—	—	—	84,000
Lindi	41	20	4	—	3	—	—	—	—	—	—	—	243,400
Mafia Island	—	—	16	1	—	—	—	—	—	—	—	—	10,000
Totals	1,267	151	390	46	217	33	17	4	9	6	101	89	4,116,000

* From reports received early in 1924, it appears that the outbreaks in the remote North-Western Area of this district were more severe than at first reported. The Senior Medical Officer, Tabora, now estimates the number of cases and deaths as 149 and 38.

TABLE VIII.—*continued.*

INCIDENCE OF PRINCIPAL INFECTIOUS DISEASES DURING 1921, 1922 AND 1923—*continued.*

DISTRICT.	Plague.						Influenza.						Population
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
	1921		1922		1923		1921		1922		1923		
NORTHERN AREA.													
Bukoba	—	—	—	—	—	—	—	—	1	—	—	—	320,100
Mwanza	21	14	6	2	24	16	—	—	6	1	1	—	702,300
Arusha	—	—	—	—	—	—	42	—	66	6	52	—	97,700
Usambara	—	—	—	—	—	—	—	—	—	—	—	—	107,400
Moshi	—	—	—	—	—	—	—	—	—	—	350	—	158,200
CENTRAL AREA.													
Tabora	—	—	15	15	—	—	261	1	28	1	3	2	502,100
Dodoma	—	149	30	23	15	10	—	8	3	—	359	151	270,900
Kondoa-Irangi	—	—	1	—	—	—	—	—	14	—	—	—	196,700
Morogoro	—	—	—	—	—	—	—	—	107	9	—	—	174,300
SOUTHERN AREA.													
Iringa	—	—	—	—	—	—	12	4	481	18	—	—	104,800
Mahenge	—	—	—	—	—	—	—	—	16	—	26	—	74,600
Songea	—	—	—	—	—	—	73	21	3	1	141	—	148,200
WESTERN AREA.													
Ujiji	—	—	—	—	—	—	—	—	2	—	—	—	139,500
Ufipa	—	—	—	—	—	—	—	—	—	—	217	23	93,600
Rungwe	—	—	—	—	—	—	227	49	23	1	—	—	237,200
COASTAL AREA.													
Tanga	—	—	—	—	—	—	—	—	20	—	—	—	86,700
Pangani	—	—	—	—	—	—	—	—	1	—	—	—	74,900
Bagamoyo	—	—	—	—	—	—	67	4	34	—	—	—	57,100
Dar-es-Salaam	—	—	—	—	—	—	31	—	371	—	—	—	149,100
Rufiji	—	—	—	—	—	—	—	—	—	—	—	—	83,200
Kilwa	—	—	—	—	—	—	—	26	—	—	—	—	84,000
Lindi	—	—	—	—	—	—	6	—	—	—	784	115	243,400
Mafia Island	—	—	—	—	—	—	—	—	—	—	—	—	10,000
Totals	?	163	52	40	39	26	?	113	1,176	37	1,933	291	4,116,000

ANKYLOSTOMIASIS.

Ankylostomiasis is common in the coastal area, particularly in the neighbourhood of Tanga. 2,459 cases with 67 deaths were reported throughout the Territory during the year. Of these, 2,168 with 57 deaths were treated at Government hospitals in the coastal towns. The greatest number of cases were treated at Tanga hospital, 78 in-patients and 1,467 out-patients being reported The Medical Officer of Health, Tanga, gives frequent lectures to the pupils at the Government School, Tanga, and explains the mode of infection. It is hoped that propaganda of this nature will result in improved village sanitation and a diminution in the incidence of the disease.

LEPROSY.

No important changes have been made during 1923 in the arrangements for the segregation and treatment of lepers.

In June, a circular was sent to all Administrative Officers in charge of districts, asking for particulars of the leper camps under their control and also for an estimate of the number of lepers in the district who were not segregated. The reports received are shown in Table IX., p. 99.

While the particulars of the leper camps can be taken as approximately correct, the estimates of the lepers not segregated must be accepted with reserve. The figures given are obtained from native sources or framed on observations made by Administrative Officers while on tour in their districts. In either case the observers are untrained and must find considerable difficulty in distinguishing Leprosy from the later manifestations of Syphilis and Yaws. The total number of lepers segregated in camps is 3,299, while the number of non-segregated lepers is estimated as 8,181, giving a total for the whole country of 11,480. These figures give a Leprosy incidence rate of 8 per 10,000 for known lepers and of 28 per 10,000 for known and estimated lepers combined. The figures 70 per 10,000 given on p. 100 of the Annual Report for 1921 are obviously incorrect and should have been 7 per 10,000.

Taking the figures for segregated lepers only the most highly infected area is Mahenge with an incidence of 67 per 10,000, while the lowest is Arusha, where no cases of Leprosy are known.

If the numbers of segregated and non-segregated lepers are combined, Mahenge shows an incidence of 69 per 10,000 and Tabora 62 per 10,000.

Segregation is practically voluntary at the present time, caretakers are appointed for each camp, but an uncrippled leper would have no difficulty in escaping. The camps are, in many cases, surrounded by large areas of ground which the able-bodied cultivate to provide a proportion of the food for the inmates. The cost of enclosing these settlements with escape-proof fences would be prohibitive. To concentrate the lepers in large central hospitals, properly staffed and equipped, would entail an expenditure on buildings, salaries and maintenance quite beyond the financial resources of the Territory.

TABLE IX.

NUMBER OF LEPER CAMPS IN EACH DISTRICT WITH NUMBER OF LEPERS SEGREGATED AND ESTIMATED NUMBER OF LEPERS NOT SEGREGATED.

DISTRICT.	Number of Camps.	Number of Lepers Segregated.	Estimated number of Lepers not Segregated.	Population.
NORTHERN AREA.				
Bukoba	7	95	—	320,000
Mwanza	—	—	2,000	702,300
Arusha	—	—	—	97,700
Usambara	1	60	—	107,400
Moshi	1	22	—	158,200
CENTRAL AREA.				
Tabora	2	134	3,000	502,100
Dodoma	1	61	—	270,900
Kondoa-Irangi	—	—	930	196,700
Morogoro	6	621	—	174,300
SOUTHERN AREA.				
Iringa	1	50	6	104,800
Mahenge	2	497	20	74,600
Songea	2	310	—	148,200
WESTERN AREA.				
Ujiji	—	—	207	139,500
Ufipa	3	128	116	93,600
Rungwe	1	718	800	237,200
COASTAL AREA.				
Tanga	1	22	200	86,700
Pangani	—	—	—	74,900
Bagamoyo	1	80	—	57,100
Dar-es-Salaam	1	77	—	149,100
Rufiji	2	76	25	83,200
Kilwa	7	260	250	84,000
Lindi	2	32	627	243,400
Mafia Island	1	56	—	10,000
Totals	42	3,299	8,181	4,116,000

LEGAL.

The following Ordinances and Government Notices published in the Gazette during 1923 are of importance to the Sanitation Division.

Ordinance No 4 of 1923, " The Natural Water Supply Regulation Ordinance," gives powers to control and regulate the use of natural water supplies and enables His Excellency the Governor to appoint Water Boards for this purpose.

Government Notice No. 18 declared Kilindoni on Mafia Island to be a port.

Government Notices Nos. 47, 48, 49 published the new Township Rules and brought them into force on April 1st, 1923, and also appointed the Presidents, Members and Executive Officers of the Township Authorities. This question is discussed more fully under the heading " Urban Sanitation," on p. 46 of this Report.

Government Notice No. 69 contained a list of 47 areas which had been declared Townships. Proclamations Nos. 4 and 6 added Kilindoni, Chole and Muheza to the list and defined their boundaries.

Government Notice No. 131 introduced an amendment into Rule 6 (*b*) of the Rules made the Ports Ordinance, 1921. This amendment was necessary as it was found that no powers existed to punish persons swimming ashore from dhows before pratique had been given.

Government Notice No. 132 declared Tuberculosis to be a notifiable infectious disease.

Ordinance No. 23 of 1923, " The Native Liquor Ordinance," controls the sale of native liquor in Townships.

General Notice No. 164, amended Rule 84 of Township Rules, 1923, and substituted two new Rules regulating the sale of local produce in Townships.

Ordinance No. 25 of 1923, " The Native Authorities Ordinance," gives Administrative Officers wide powers which should be valuable in the future. This Ordinance is discussed more fully under " Rural Sanitation " on p. 45 of this Report.

Ordinance No. 34 of 1923, " The Customs Tariff Ordinance," lays down the duty to be paid on imported merchandise. Mosquito nets, mosquito netting and mosquito gauze, together with pipes and piping for sewerage, including manhole covers and fittings, are admitted free of duty. Rat traps, vaccine lymph and sera are also on the free list. A duty of 10 per cent. is levied on Sanitary earthenware, such as water closets, lavatories and baths.

Central Town Planning and Building Committee.

Fifteen Meetings of this Committee were held during 1923.

The Committee is composed of the Principal Medical Officer (Chairman), The Director of Public Works, the Land Officer, and the Senior Sanitation Officer, who is also Secretary.

The Committee is mainly concerned with the laying out of the different Townships throughout the Territory and with the siting of the Government buildings within these Townships.

The procedure to be adopted in connection with Town Planning is laid down in the following paragraphs extracted from " Standing Orders " :—

" Every District Town Planning and Building Committee should be in possession " of a survey map of its area and environs or, in default of a map drawn by a surveyor, " of a diagram or plan drawn as nearly as possible to scale. The District Committee " of a Township shall cause to be shown on the map or plan its suggestions in regard to " new streets, building plots, surface drainage schemes, water supply, etc.

" The plan shall take cognisance of the necessity for open spaces, gardens, schools " with the necessary recreation grounds, hospitals, gaols, warders and askari lines, public " buildings, including mosques, cemeteries, markets, cattle markets, abattoirs, camping " grounds, water storage reservoirs, sanitary areas for the dumping, burning or disposal " of waste and rubbish, and no private interest shall be allowed to interfere with a plan " once laid down and approved. Consideration of present and future Traffic needs, " the improvement of the health of the community, and the preservation of natural " beauty in the landscape should be the determining factors in drawing up the general " plan.

" Town extension may only be permitted on reference to this definite plan after " approval by the Central Committee.

" The plan and recommendations of the District Town Planning and Building " Committee will be forwarded in the first place to the Land Officer. The Land Officer " with the aid of any other plans which may be in his possession will prepare the most " detailed plan for the Central Town Planning and Building Committee. The plan, " when approved by the Central Committee, will be submitted to the Governor for " approval.

" After approval the plan will be registered and filed, a copy being sent to the " District Town Planning and Building Committee concerned."

The plans of the following Townships which have been considered by the Committee were approved by His Excellency the Governor during the year.

Bahi, Dodoma, Gulwe, Itigi, Kikombo, Manyoni, Mikesse, Moshi, Ngerengere, Ruvu and Saranda.

Considerable progress has been made with the surveys of many of the larger and more important towns, and the final plans for several of these should be completed during 1924.

Vital Statistics.

Several stations have made an attempt to provide figures on which vital statistics can be based. The returns, however, vary so widely that no reliable deduction can be made from them. The Medical Officer of Health, Tanga, has obviously gone to a great deal of trouble to analyse the reports received from the Tanga sub-districts. His figures, corrected to compensate for a few missing returns, show an African death rate of 15.6 per 1,000, and African birth rate of 12.1 per 1,000, and an Infantile Mortality Rate of 91 per 1,000. These figures cannot be accepted as even approximately correct. In the Annual Report for 1922 statistics provided by the Senior Commissioner, Tabora, gave an Infantile Mortality Rate of 52 per cent., which is probably much nearer the correct figure.

Until registration of Births and Deaths is compulsory and reliable, no useful result can be obtained from an analysis of the returns sent in by a few districts.

Recommendations for Future Work.

The extension of the activities of the Sanitation Division is dependent on an increase in the staff and funds available.

It has been decided by His Excellency the Governor that the time has not yet come when the Territory would be justified in setting up a separate staff of Medical Officers of Health, and the present arrangement under which Medical Officers are seconded as Medical Officers of Health is to be continued, but it is expected that an additional officer, to be stationed at Tabora as Medical Officer of Health, will be available.

The appointment of a Medical Entomologist has been asked for repeatedly. A mosquito survey is a necessity if an anti-malarial campaign is to be successful. At the present time the varieties of anopheline mosquitoes, which are the main carriers of Malaria throughout the Territory, have not been determined. The solution of the mystery as to why Bukoba (which is surrounded by a swamp and has a sluggish lagoon in the middle of the Town) is almost free from mosquitoes, might assist the Sanitary Division in eradicating mosquito larvæ in other districts. Very large areas of the Territory are infested with tsetse fly and the position, from a medical point of view, requires elucidation. This appointment has not been sanctioned, other medical needs being considered to be more urgent.

Two other appointments which are considered to be of great importance to the Sanitation Division have not been sanctioned. A Building Inspector is a necessity in a large town such as Dar-es-Salaam. It is useless for a Township Authority to insist on the production of complete plans before a building may be erected when there is no official available to see that the plans, when passed, are adhered to. The Public Works Department give what assistance they can to the Sanitation Division, but the extensive building programme now being carried out makes it impossible for the Director of Public Works to lend a Foreman of Works for this purpose. The difficulty will not be solved until a whole-time Inspector has been appointed. The Director of Public Works was asked to insert provision in his draft estimates for a Sanitary Engineer whose services could be put at the disposal of the Sanitation Division when required. There are numerous problems connected with drainage and water supplies of Townships in the Territory which can only be solved by a trained engineer with considerable sanitary experience. Each important Township in the Territory should be provided with a complete drainage plan which could be proceeded with from year to year as funds allow.

The appointment of a travelling Medical Officer of Health or Sanitary Superintendent who could visit the smaller towns and remain at each for a few weeks organising an efficient sanitary service would result in a considerable improvement in the condition of these Townships. As increased staff became available, this system could be extended to the larger villages.

The shortage of qualified investigators, who could be despatched immediately to determine the cause of any serious outbreak of infectious disease, gives rise to considerable difficulties. The two fatal epidemics referred to on p. 94 had both ceased before any Medical Officer could be sent to the infected area and, in consequence, no pathological material could be sent to the Laboratory for examination. The appointment of an Assistant Medical Officer of Health at Dar-es-Salaam and of an Assistant Bacteriologist would make it possible to despatch a trained observer to investigate an outbreak of dangerous infective disease.

A. H. OWEN,
Senior Sanitation Officer.

IV. *HOSPITALS AND DISPENSARIES.*

Additions and alterations to the hospital accommodation in the Territory are detailed below (p. 103-105).

Cases Treated.

There came under treatment at the Government hospitals and dispensaries in 1923, 16,780 in-patients and 114,695 out-patients, the figures for 1922 being 13,650 and 103,409 respectively. Of the patients in 1923:—

528	In-patients and	809	Out-Patients	were European Officials.
461	,, ,,	1,008	,,	belonged to the General European Population.
6,997	,, ,,	34,423	,,	were Asiatic and Native Officials, in which category are included the K.A.R., Police and Warders.
8,794	,, ,,	78,455	,,	belonged to the General Asiatic and Native Population, in which Convicts are included.

Under the heading "In-patients" are included those patients treated at their homes who were incapacitated from following their usual avocations. Natives are very seldom treated at their homes: the additions to the number of in-patients concerns almost exclusively Europeans and Asiatics. Exact returns of the admissions to hospitals are shewn in the Annual Blue Book.

These figures are compiled from the returns of twenty-seven hospitals and dispensaries (*see* p. 106) and do not include several sub-stations at which Asiatic Compounders or Native Dressers are posted. The returns for Mahenge, Musoma, Mafia Island, Shinyanga and Mohoro are not included, either because they had not been received when this Report was compiled or on account of their inaccuracy. Mohoro was closed down as an administrative centre and the Compounder in charge withdrawn in April, 1923.

At the principal hospitals there has been a decided increase in the number of patients dealt with. The Medical Officer in charge (Dr. J. M. Semple) reports that the average number of patients in the Sewa Hadji Hospital, Dar-es-Salaam, during 1923, has been approximately 145, which, as he says, is "better described as packing than as overcrowding." At Arusha the number of admissions to hospital rose from 373 in 1921 to 544 in 1922 and to 599 in 1923. At most hospitals the numbers admitted are limited only by lack of further accommodation.

The number of surgical operations performed (*see* pp. 144-146) is almost exactly the same as in 1922 and, but for a shortage, in the early months of the year, of certain essentials, such as chloroform, would have been considerably greater. Many of the surgical cases reach hospital in a very septic condition and, in some instances, after long journeys, so that the mortality (4.12 per cent.) cannot be considered excessive. Native midwifery cases, in particular, come under treatment only when nature and native practitioners have been given every chance and are dealt with at great disadvantage. Amongst the more advanced tribes, the natives are showing less reluctance to submit to operative measures. The bulk of the surgical work has been done at six stations, viz.: the Sewa Hadji Hospital, Dar-es-Salaam, Tanga, Arusha, Tabora, Mwanza and Bukoba, by the Medical Officers in charge.

Native Assistants.

One of the chief difficulties encountered in the Territory, in connection with medical work, is the poor supply of educated and intelligent natives, suitable for training as hospital assistants or ward orderlies. Our most valuable native assistants come from adjoining Territories, particularly Nyasaland, where natives receive a very thorough training in medical work at certain of the Missions, notably the Church of Scotland Mission, Blantyre. To the authorities of that Mission the writer is much indebted for assistance in engaging trained assistants. The African native shows no mean aptitude for and interest in medical work, but is often deficient in sense of duty and resourcefulness. A great expansion in the activities of the Education Department of the Territory must be awaited before an adequate supply of Africans of approved reliability and sufficiently educated to profit by medical training, is available. Meanwhile, the Department recruits Sub-Assistant Surgeons and Compounders in India.

Native Hospitals.—Though, no doubt, good work is not infrequently accomplished at native hospitals constructed of rough timber, grass and reeds, such conditions impose a severe handicap on the staff, and it is gratifying to record that this type of accommodation is gradually being replaced by permanent and more suitable buildings at the principal centres. It does not seem unreasonable to demand that accommodation for the law-abiding sick shall be at least as good as that provided for the healthy criminal. The very heavy building programme with which the Public Works Department is confronted has made this process a slow one. In the districts, subsidiary to the hospital at the administrative headquarters, one would wish to see temporary hospitals at the principal native centres, under the immediate charge of trained African assistants: the enormous mass of disablement due to Yaws, Ankylostomiasis, Venereal Diseases, Tropical Ulcers, Filariasis, Schistosomiasis and Leprosy, cannot be seriously attacked until medical aid is brought near the homes of the people. Surgical cases would necessarily be transferred to the main hospital where better facilities existed. Supervision, by means of frequent visits from a European Medical Officer, would be essential and the possibility of this depends on increased European staff and improved communications. The best type of bedstead for native hospitals is a fruitful source of discussion. Most of our hospitals have wooden bedsteads of more or less primitive type. By no means available in out-stations can this type of bed be kept free of vermin. The problem is thought to have been solved by the construction to specification of a three-piece iron bedstead without crevices or holes in the frame and fitted with a canvas oblong, in place of a spring mattress, lashed to the tubular sides by stout cord. The canvas can be removed for boiling in a few seconds and replaced as speedily. Some of these bedsteads are in use at the Sewa Hadji Hospital and, thanks to a gift from the British Red Cross Society and Order of St. John, it will be possible to order nearly 400 more.

X-ray Apparatus.—The X-ray apparatus at the European Hospital, Dar-es-Salaam—the only set in the Territory—has been out of action for some ten months of the year owing to the "burning-out" of the coil. A new coil has been ordered. It may be mentioned that the staff of the Electric Light Department has rendered great assistance, otherwise unobtainable, in putting this apparatus into working order, and it is much to be regretted that the coil became useless soon after this had been accomplished. The expense incurred in purchasing a new coil and other renovations has prevented the acquirement of a dental X-ray set. For reasons mentioned in the report of the Government Dentist, p. 149, it is considered that this apparatus would be of great value.

NEW BUILDINGS ERECTED AND IMPROVEMENTS AND REPAIRS TO EXISTING MEDICAL BUILDINGS EFFECTED DURING 1923.

ARUSHA.

The kichen and new latrine for the European Hospital were completed by the Public Works Department and numerous minor repairs to the hospital buildings effected.

Work was commenced on a new house for the Compounder; his old quarters, composed of native materials, having fallen into serious disrepair.

BUKOBA.

The new native hospital, constructed largely out of material obtained by the demolition of the old Infectious Diseases Hospital, was ready for occupation in the middle of July. The operation room, in the Administrative block, has proved a great boon and 97 of the 850 surgical operations tabulated at pp. 144-146 were performed at Bukoba. Accommodation for 42 in-patients is provided, but the Medical Official reports that structural defects in the buildings have revealed themselves and extensive repairs are likely to be required in the near future.

DAR-ES-SALAAM.

Sewa Hadji Hospital.—An old store and X-ray room were renovated and converted into a three-bedded ward: the dark room, attached to the X-ray room, was arranged as a lavage room.

With a view to diminishing thefts—which had been of frequent occurrence—the hospital buildings have been fenced in.

The accommodation at the hospital has been continuously taxed to its utmost limits.

The site of the hospital, on the harbour in proximity to the Customs Offices, is likely to become very valuable when increased facilities for shipping are provided, and it is considered that it should be relinquished and a new and larger hospital erected at a more convenient place. With the exception of the Administrative block, the buildings are of poor construction and small value.

European Hospital.—The Senior Medical Officer vacated the ground floor of the annexe in March and, after various improvements, including a new staircase connecting the two floors, had been effected by the Public Works Department, the whole annexe was assigned to the Nursing Sisters, who now enjoy excellent and commodious quarters. The Senior Medical Officer was, temporarily, allotted one of the new two storied houses in Main Avenue: a new bungalow, on the plot adjoining that on which the Principal Medical Officer's house stands, was nearing completion at the end of the year and will be occupied by the Senior Medical Officer early in 1924.

Health Offices.—New offices in Acacia Street, affording better accommodation, were occupied by the Medical Officer of Health in November, 1922. They are leased from the owners at a rental of Shs. 600/- p. m.

The new Market was opened by His Excellency the Governor on 1st August, 1923. It is a most excellent building for the purpose and is provided with efficient flushing arrangements, good drainage and screened meat safes. It has proved a very great improvement to the town.

The rebuilding of the sewer outlets in the harbour and on the sea front has been taken in hand and great improvements effected.

DODOMA.

Plans for a new Native and Indian hospital, for which £2,000 appears in the 1923/24 Estimates, have been drawn up and the site selected: work has not yet commenced. It is intended to convert the administrative block of the old hospital into a residence, for which purpose it is, both in construction and site, well adapted.

KIGOMA.

One block of the new native hospital was completed during the year.

LINDI.

The new house for the Medical Officer was nearing completion at the end of the year. Repairs and improvements to the hospital buildings have been effected.

MIKINDANI (LINDI DISTRICT).

The new quarters for the Sub-Assistant Surgeon were completed. One of the go-downs, adjoining the Usugara building, where the dispensary is located, was converted into a hospital ward for natives.

MOROGORO.

Various minor repairs have been carried out by the Public Works Department at the hospital.

Central Lunatic Asylum.—It was originally intended to build the new asylum at Dar-es-Salaam. The difficulty of obtaining a suitable site and high value of land in the capital led to a decision to build the asylum at Morogoro, where an excellent site of 40 acres has been obtained. Plans, based on information and drawings kindly supplied by Major W. S. J. Shaw, M.D., I.M.S., Superintendent Central Asylum, Yeravda, have been drawn up. £7,000 has been voted for the buildings, upon which work has not yet been commenced.

MOSHI.

The new native hospital, mentioned in last year's report, was completed and occupied in March : it is a temporary structure, composed of native materials. A sum of £2,000 appears in the 1923/24 Estimates to provide a new permanent Native and Indian Hospital at Moshi : work on these buildings had not been commenced at the end of the year.

NAMANYERE (UFIPA DISTRICT).

The Dispensary, constructed of native materials, was completed in May.

TABORA.

European Hospital.—The verandah to the west wing was completed, but further work on the new bathrooms and W.C.'s has been delayed.

Native Hospital.—The present native hospital is a strange collection of buildings, but poorly adapted for hospital purposes. A vote of £6,000 for a new Native and Indian hospital appears in the 1923-24 Estimates. Plans have been drawn up and the site selected, but work has not yet been commenced.

SHINYANGA (SUB-DISTRICT OF TABORA).

The Administrative Officer in charge (Mr. McMahon) has erected a small hospital of three wards, with dispensary, kitchen and latrines, with the aid of a small vote from the Public Works Department. These buildings are constructed of local materials and replace the three very dilapidated grass huts which have served as a hospital hitherto. They were nearing completion at the end of the year. At Negeze, in Shinyanga, Sultan Makawaia has erected a hospital and dispensary of local materials at his own expense, the Government providing doors and windows. These buildings were completed at the end of the year and a native dispenser was despatched to take over charge.

TANGA.

The Medical Officer of Health removed to new offices in March, the building previously used as Health Offices being required by the Public Works Department.

At the hospital, a mortuary and post-mortem room were erected, additions to the bathroom and latrine accommodation for native patients constructed and a block of the native hospital renovated for the reception of Goan and higher class Asiatic patients : separate latrine and store accommodation was provided for this block which now affords very satisfactory accommodation.

The old medical store was converted into quarters for the Nursing Staff who previously occupied rooms on the ground floor of the hospital. From the accommodation thus set free in the hospital, a drug store and a room for microscopical examinations have been provided.

The floors of the Senior Medical Officer's quarters have been cemented.

Some work has been done on the water supply to the European hospital, but it is still far from satisfactory : new pumps are required.

TUKUYU.

Alterations and additions to the hospital were completed.

IGALI

Is a sub-station of Tukuyu. Here a small new native hospital and dispensary have been erected. The medical work is in charge of a native hospital attendant.

Shinyanga Hospital.

Photographs by Mr. McMahon, A.O., Shinyanga (not reproduced).

TABLE X.

SUMMARY OF CASES, IN AND OUT-PATIENTS, TREATED AT TWENTY-SEVEN GOVERNMENT HOSPITALS AND DISPENSARIES IN 1923, SHOWING DENOMINATIONS OF PATIENTS.

STATIONS.	In-Patients.				Deaths.	Out-Patients.				Total.
	E.O.	E.G.P.	N.O.	N.G.P.		E.O.	E.G.P.	N.O.	N.G.P.	
Arusha	8	38	316	302	24	34	112	860	4,929	6,599
Bagamoyo	1	—	85	143	4	6	2	577	4,007	4,821
Bukoba	7	—	49	662	22	5	26	739	6,465	7,953
Dar-es-Salaam European Hospital	274	117	190	62	6	274	278	159	92	1,446
,, Sewa Hadji Hospital	—	—	2,391	997	60	—	—	9,903	5,387	18,678
Dodoma	30	2	163	406	19	56	23	888	3,685	5,253
Iringa	1	1	175	203	9	24	2	1,836	5,000	7,242
Kahama	—	—	63	174	3	—	2	303	437	979
Kigoma	18	19	188	274	18	5	3	620	418	1,545
Kilossa	2	2	37	178	9	22	20	410	2,247	2,918
Kilwa	4	1	48	101	8	3	—	306	2,105	2,568
Kondoa-Irangi	1	25	10	43	2	1	6	69	950	1,105
Lindi	10	3	122	181	6	18	9	772	1,805	2,920
Lushoto	3	1	14	51	2	13	7	322	1,389	1,800
Mikindani	1	—	56	64	8	—	1	249	1,208	1,579
Morogoro	18	6	294	376	47	15	10	1,235	1,289	3,243
Moshi	8	117	74	331	32	31	154	1,233	7,539	9,487
Mwanza	21	51	232	610	28	22	24	1,227	2,696	4,883
Namanyere	10	3	10	277	8	12	5	589	3,544	4,450
Pangani	2	4	28	260	12	—	6	26	1,745	2,071
Singidda	1	3	21	277	9	2	3	190	760	1,257
Songea	3	—	218	174	13	28	5	2,805	2,968	6,201
Tabora	48	21	1,776	869	59	142	139	5,302	1,075	9,372
Tanga	44	38	229	936	103	65	155	2,130	7,449	11,046
Tunduru	—	—	4	148	1	—	—	264	4,104	4,520
Tukuyu	9	4	100	584	29	10	10	614	4,304	5,635
Utete	4	5	104	111	4	21	6	795	858	1,904
Totals	528	461	6,997	8,794	545	809	1,008	34,423	78,455	131,475

E.O. = European Officials. E.G.P. = European General Population. N.O. = Asiatic and Native Officials.
N.G.P. = General Asiatic and Native Population.

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS.

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hadji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilossa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.
(a) *Infective disease*—														
Beri Beri	—	—	—	—	—	—	2	—	—	—	—	—	—	—
Cerebro-spinal Fever	1	—	—	—	1	—	—	—	2	—	—	—	—	—
Chicken Pox	17	1	4	—	4	29	7	—	14	—	—	6	2	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dengue	—	—	—	9	—	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery—														
(a) Amoebic	37	5	—	10	12	2	—	—	—	2	—	—	—	3
(b) Bacillary	—	2	—	2	5	13	14	—	8	1	—	—	—	—
(c) Unclassified	1	2	2	1	—	11	1	—	—	1	2	5	2	—
Endocarditis-infective	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	1	—	—	9	3	—	—	—	—	—	—	1	—	—
Paratyphoid Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas	1	—	—	—	—	9	—	—	—	—	—	—	3	—
Gangrene	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gangosa	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gonorrhœa	94	38	561	2	185	45	6	19	49	40	28	34	21	15
Influenza	72	—	—	27	230	—	11	—	8	—	—	—	3	—
Kala Azar	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Leprosy—														
(a) Nodular	2	—	14	—	—	—	—	—	7	—	2	—	—	1
(b) Anæsthetic	—	—	—	—	—	—	—	—	—	—	—	2	—	—
(c) Unclassified	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Malaria—														
(a) Tertian	28	561	1,259	9	—	852	646	125	9	—	104	203	—	140
(b) Quartan	—	—	—	—	—	—	—	—	—	—	2	—	—	—
(c) Aestivo-autumnal ..	26	—	—	199	4,387	—	—	—	7	477	1	—	—	—
(d) Chronic Malaria	6	7	16	—	10	2	2	—	—	—	—	10	2	2
Carried forward ..	286	616	1,856	268	4,837	963	689	145	104	521	139	261	33	161

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Mwanza.	Namanyere.	Pangani.	Songea.	Singidda.	Tabora.	Tanga.	Tunduru.	Tukuyu.	Utete.	Total.
(a) *Infective disease*—														
Beri Beri	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Cerebro-spinal Fever	—	—	—	4	1	—	—	—	—	—	—	—	—	9
Chicken Pox	—	17	—	54	2	—	5	—	45	37	—	—	—	244
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dengue	—	—	—	—	—	—	—	—	—	—	—	—	—	9
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery—														
(a) Amoebic	8	32	22	7	12	2	7	2	19	9	—	—	—	191
(b) Bacillary	—	7	—	2	—	2	—	2	—	—	—	8	12	78
(c) Unclassified	—	—	—	—	—	2	—	—	—	13	—	6	—	49
Endocarditis-infective	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	—	1	—	2	—	—	—	1	2	—	—	—	—	20
Paratyphoid Fever	—	—	—	—	—	—	—	—	1	—	—	—	—	1
Erysipelas	—	—	3	—	—	—	—	—	—	—	—	—	—	16
Gangrene	—	—	—	—	1	—	—	—	—	—	—	—	—	1
Gangosa	—	—	10	1	—	—	—	—	—	—	—	—	—	11
Gonorrhœa	14	39	26	111	32	16	63	14	129	116	55	16	19	1,787
Influenza	—	—	374	3	89	—	281	1	463	59	929	620	2	3,172
Kala-Azar	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Leprosy—														
(a) Nodular	—	1	—	2	—	—	—	—	—	—	—	6	—	35
(b) Anæsthetic	—	—	1	—	—	13	—	—	—	—	—	3	—	19
(c) Unclassified	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Malaria—														
(a) Tertian	—	477	—	688	508	140	68	101	—	208	101	349	290	6,866
(b) Quartan	—	6	—	—	—	2	13	—	—	—	—	—	1	24
(c) Aestivo-autumnal ..	—	—	5	4	32	—	—	—	1,137	992	—	74	—	7,341
(d) Chronic Malaria	—	5	—	1	—	21	1	1	3	5	—	—	18	112
Carried forward ..	22	585	441	879	677	198	438	122	1,799	1,439	1,085	1,082	342	19,988

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hadji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilossa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.
Brought forward ..	286	616	1,856	268	4,837	963	689	145	104	521	139	261	33	161
(a) *Infective disease*—continued.														
Malaria—														
(*e*) Blackwater	—	2	1	8	4	—	—	—	2	2	1	—	1	—
(*f*) Cerebral	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(*g*) Unclassified	244	—	—	—	—	—	—	—	212	—	27	—	306	—
Measles	—	—	14	2	1	—	—	—	—	—	—	—	—	—
Mumps	—	—	8	—	2	5	12	1	—	—	—	—	—	2
Mycetoma	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Malta Fever	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Plague	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia, acute lobar ..	7	8	7	4	105	4	3	7	5	6	1	11	2	2
Pyogenic Infection—														
(*a*) Abscess	—	—	—	—	—	—	—	—	2	—	—	—	—	—
(*b*) Osteomyelitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(*c*) Pyoemia	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rabies	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Relapsing (Tick) Fever ..	5	—	—	7	30	2	44	1	6	2	—	—	—	1
Rheumatic Fever	—	—	—	—	—	—	21	4	1	—	3	—	—	—
Rubella	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Sand-fly Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Septicæmia	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Seven Days' Fever	—	—	—	7	—	—	—	—	—	—	—	—	—	—
Trypanosomiasis (S. Sick) ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Small Pox	2	1	—	—	—	—	—	2	—	—	—	3	1	3
Syphilis—														
(*a*) Primary	1	6	14	1	110	83	36	20	13	18	3	5	8	5
(*b*) Secondary	28	8	625	2	98	23	21	7	56	59	5	101	16	1
(*c*) Inherited	1	2	12	1	124	1	—	—	1	—	—	—	—	1
(*d*) Tertiary	7	—	—	—	—	—	—	—	—	—	—	—	—	—
Carried forward ..	583	643	2,537	300	5,312	1,081	826	187	402	608	179	382	367	176

Some cases of Blackwater Fever were transferred from one station to another and thus appear under two stations: the total number of cases is 35, as stated.

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Mwanza.	Namanyere.	Pangani.	Songea.	Singidda.	Tabora.	Tanga.	Tunduru.	Tukuyu.	Utete.	Total.
Brought forward ..	22	585	441	879	677	198	438	122	1,799	1,439	1,085	1,082	342	19,988
(*a*) *Infective disease*—continued.														
Malaria—														
(*e*) Blackwater	—	2	2	3	—	3	—	—	7	1	—	1	—	35
(*f*) Cerebral	1	1	—	—	—	—	—	—	—	—	—	—	—	2
(*g*) Unclassified	56	—	3,033	—	—	—	706	—	—	—	—	—	—	4,584
Measles	—	—	—	6	2	—	—	—	—	1	—	—	—	26
Mumps	35	—	3	—	8	—	—	—	7	—	—	9	—	92
Mycetoma	—	—	—	—	—	5	—	—	—	—	—	—	—	6
Malta Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Plague	—	—	—	—	—	—	—	1	—	—	—	—	—	1
Pneumonia, acute lobar ..	2	21	7	3	35	3	9	7	19	54	—	13	23	368
Pyogenic Infection—														
(*a*) Abscess	—	1	1	—	—	—	1	2	—	—	—	—	—	7
(*b*) Osteomyelitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(*c*) Pyoemia	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rabies	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Relapsing (Tick) Fever ..	—	4	—	4	—	—	—	—	3	5	—	3	2	119
Rheumatic Fever	—	1	1	20	4	—	—	—	7	—	1	—	7	79
Rubella	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Sand-fly Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Septicæmia	—	1	—	—	—	—	—	1	—	3	—	—	—	6
Seven Days' Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	7
Trypanosomiasis (S. Sick) ..	—	—	—	3	—	—	—	—	—	—	—	—	—	3
Small Pox	—	—	—	—	—	—	—	1	—	12	—	—	—	25
Syphilis—														
(*a*) Primary	1	13	—	177	1	3	15	32	37	46	38	21	9	716
(*b*) Secondary	6	95	92	108	73	17	1	31	55	82	36	42	—	1,688
(*c*) Inherited	—	—	—	—	2	—	1	—	83	10	—	14	—	253
(*d*) Tertiary	—	2	—	—	1	—	—	—	—	—	—	—	—	10
Carried forward ..	123	726	3,580	1,203	803	229	1,171	197	2,017	1,653	1,160	1,185	383	28,008

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hadji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilossa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.
Brought forward ..	583	643	2,537	300	5,312	1,081	826	187	402	608	179	382	367	176
(a) *Infective disease*—continued														
Tetanus	—	—	—	—	2	—	—	—	—	—	—	—	—	—
Tuberculosis	5	5	5	1	29	8	2	—	7	—	3	3	5	3
Vaccinia	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	16	5	2	2	—	—	—	—	—	—	—	—	—
Yaws	202	72	10	—	413	54	13	28	163	18	143	407	91	30
P.U.O.	166	—	—	95	89	—	2	—	2	—	—	1	—	—
Others	—	—	—	—	—	—	—	—	1	—	—	—	—	—
(b) *Intoxications*—														
Alcoholism	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Morphinism	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Others	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(c) *General diseases*—														
Anæmia	13	183	3	7	62	23	1	—	2	14	26	1	19	3
Anæmia-Pernicious	—	—	—	—	6	—	—	—	—	—	—	—	—	—
Diabetes	—	—	—	—	2	—	—	—	—	—	—	—	—	1
Exophthalmic Goitre	—	—	—	1	—	—	—	—	—	—	—	—	1	—
Gout	—	—	1	—	4	1	1	—	—	—	—	—	1	2
Leucocythæmia	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hodgkin's disease	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Myxœdema	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Purpura	—	—	2	—	—	—	—	—	—	—	—	—	—	—
Rickets	—	—	—	—	2	—	—	—	—	—	—	—	—	—
Scurvy	—	—	—	—	4	—	—	—	—	—	—	—	—	—
Goitre, parenchymatous ..	2	—	—	—	—	—	—	—	—	—	—	—	3	—
Starvation	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Debility	—	—	1	76	—	—	—	—	—	—	—	—	—	—
Hæmophilia	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other General diseases ..	19	14	—	34	10	32	—	—	—	—	—	—	—	3
Carried forward ..	992	933	2,564	516	5,937	1,199	845	215	577	640	351	794	487	218

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Mwanza.	Namanyere.	Pangani.	Songea.	Singidda.	Tabora.	Tanga.	Tunduru.	Tukuyu.	Utete.	Total.
Brought forward ..	123	726	3,580	1,203	803	229	1,171	197	2,017	1,653	1,160	1,185	383	28,008
(a) *Infective disease*—continued														
Tetanus	—	—	—	—	—	—	—	—	—	3	—	—	—	5
Tuberculosis	3	—	32	5	—	12	8	—	6	9	—	9	2	162
Vaccinia	—	—	5	—	—	—	—	—	—	—	—	—	—	5
Whooping Cough	—	—	4	—	—	—	1	2	—	8	1	—	—	41
Yaws	29	187	196	33	76	119	133	19	97	302	308	422	51	3,616
P.U.O.	—	—	5	—	—	—	—	—	—	—	76	—	—	436
Others	—	2	—	—	—	—	—	—	—	—	—	—	—	3
(b) *Intoxications*—														
Alcoholism	—	—	1	—	—	—	—	—	—	—	—	—	—	2
Morphinism	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Others	—	—	—	—	—	—	—	—	—	—	—	—	1	1
(c) *General diseases*—														
Anæmia	—	2	37	35	6	25	7	13	32	57	19	8	—	598
Anæmia-Pernicious	—	—	—	1	—	1	—	—	—	—	—	—	—	8
Diabetes	—	—	—	—	—	—	1	—	1	2	—	—	—	7
Exophthalmic Goitre	—	—	—	—	1	—	—	—	—	—	—	—	—	3
Gout	—	—	—	—	—	—	—	—	—	—	14	—	—	24
Leucocythæmia	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hodgkin's disease	—	—	1	—	—	—	—	—	—	—	—	—	—	1
Myxœdema	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Purpura	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Rickets	—	—	—	—	—	—	—	—	—	3	—	—	—	5
Scurvy	—	5	—	—	—	—	1	—	5	—	2	—	—	17
Goitre, parenchymatous ..	—	—	—	—	—	—	—	—	—	—	—	3	—	8
Starvation	—	—	1	—	—	—	—	—	—	—	—	—	—	2
Debility	—	31	—	1	—	—	1	1	2	5	—	—	25	143
Hæmophilia	—	—	1	—	—	—	—	—	—	—	—	—	—	1
Other General diseases ..	—	—	—	114	—	18	—	—	—	22	—	—	5	271
Carried forward ..	155	953	3,863	1,392	886	404	1,323	232	2,160	2,064	1,580	1,627	467	33,369

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

	Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hadji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilossa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.
	Brought forward ..	992	933	2,564	516	5,937	1,199	845	215	577	640	351	794	487	218
	d) Local diseases—														
	(1) Nervous System—														
Sub-Section I	Neuritis	2	27	3	4	101	—	1	—	4	—	1	—	—	—
	Meningitis	—	—	—	—	1	2	—	—	—	—	—	—	—	—
	Myelitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hydrocephalus	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Encephalitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Abscess of Brain	—	—	—	—	1	—	—	—	—	—	—	—	—	—
	Congestion of Brain	—	—	—	—	—	—	—	—	—	4	—	—	—	—
	Tubercular Meningitis ..	1	—	—	—	—	—	—	—	—	—	—	—	—	—
	Locomotor Ataxia	—	—	—	—	—	—	—	—	—	—	—	1	—	—
	Cerebral Thrombosis.. ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Other diseases	2	—	—	2	14	—	—	—	—	—	1	—	1	—
Sub-Section II	Apoplexy	—	—	1	1	1	—	—	—	—	—	—	—	—	—
	Paralysis	2	14	9	—	8	1	—	—	2	—	—	1	—	1
	Chorea..	—	—	—	—	—	—	—	—	—	—	—	1	—	—
	Epilepsy	1	5	15	—	10	6	—	1	1	1	—	4	—	1
	Neuralgia	40	198	—	35	309	54	9	40	—	68	43	12	41	6
	Hysteria	—	—	—	—	2	—	—	—	—	—	—	—	—	3
	Headache	—	—	—	—	1	—	115	—	—	—	2	—	4	10
	Neurasthenia	—	—	—	17	—	—	—	—	—	—	—	—	1	—
	Migraine	—	—	8	—	—	—	—	—	—	—	—	—	—	—
	Aphasia	—	—	2	—	—	—	—	—	—	—	—	—	—	—
	Insomnia	—	—	—	—	—	—	1	—	1	—	—	—	—	—
	Infantile Paralysis	—	—	—	—	—	—	—	—	—	—	—	1	—	—
	Torticollis	—	—	—	—	—	—	—	—	—	—	—	—	—	1
	Aural Vertigo..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Vertigo	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Other diseases	59	1	—	2	4	—	—	—	1	—	26	—	—	2
	Mental diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Carried forward ..	1,099	1,178	2,602	577	6,389	1,262	971	256	586	713	424	814	534	242

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

	Disease.	Mikindani.	Morogoro.	Moshi.	Mwanza.	Namanyere.	Pangani.	Songea.	Singidda.	Tabora.	Tanga.	Tunduru.	Tukuyu.	Utete.	Total.
	Brought forward ..	155	953	3,863	1,392	886	404	1,323	232	2,160	2,064	1,580	1,627	467	33,369
	(*d*) *Local diseases*—														
	(1) Nervous System—														
Sub-Section I	Neuritis	1	15	—	—	131	1	—	3	14	19	43	4	9	383
	Meningitis	—	—	4	—	—	—	—	—	—	1	—	—	—	8
	Myelitis	—	—	—	1	—	—	—	—	—	—	—	—	—	1
	Hydrocephalus	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Encephalitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Abscess of Brain	—	—	—	—	—	—	—	—	—	—	—	—	—	1
	Congestion of Brain	—	—	—	—	—	—	—	—	—	1	—	—	—	5
	Tubercular Meningitis ..	—	—	—	—	—	—	—	—	—	—	—	—	—	1
	Locomotor Ataxia	—	—	—	—	—	—	—	—	—	—	—	—	—	1
	Cerebral Thrombosis.. ..	—	—	—	—	—	—	—	—	—	1	—	—	—	1
	Other diseases	—	8	—	—	—	14	—	—	—	5	—	—	—	47
Sub-Section II	Apoplexy	—	—	—	—	—	—	—	—	2	—	—	—	—	5
	Paralysis	—	—	—	—	—	2	—	—	6	—	1	1	1	49
	Chorea..	—	—	2	—	—	—	1	—	—	—	—	—	—	4
	Epilepsy	—	—	4	1	6	2	3	3	6	—	—	12	2	84
	Neuralgia	59	69	—	138	52	—	—	29	143	71	9	—	103	1,528
	Hysteria	—	—	2	—	—	—	—	—	—	—	—	—	—	7
	Headache	—	23	1	—	5	—	—	—	—	—	33	—	—	194
	Neurasthenia	—	—	8	—	—	—	—	—	3	4	8	—	—	41
	Migraine	—	—	—	—	—	—	—	—	—	—	—	—	—	8
	Aphasia	—	—	—	—	—	—	—	—	—	—	—	—	—	2
	Insomnia	—	—	—	—	—	—	—	—	3	1	—	—	—	6
	Infantile Paralysis	—	—	—	—	—	—	—	—	—	—	—	—	—	1
	Torticollis	—	—	—	—	—	—	—	—	—	—	—	—	—	1
	Aural Vertigo..	—	—	1	—	—	—	—	—	1	—	—	—	—	2
	Vertigo	—	—	—	—	—	—	—	—	—	1	—	—	—	1
	Other diseases	—	—	—	1	—	—	—	—	—	14	—	—	15	125
	Mental diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Carried forward ..	215	1,068	3,885	1,533	1,080	423	1,327	267	2,338	2,182	1,675	1,644	597	35,875

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hedji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilossa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.
Brought forward ..	1,099	1,178	2,602	577	6,389	1,262	971	256	586	713	424	814	534	242
(*d*) *Local diseases*—continued														
Sub-Section III — Idiocy	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Sub-Section III — Mania	—	4	3	—	—	—	—	—	1	—	—	4	1	—
Sub-Section III — Melancholia	—	—	—	—	—	—	1	—	—	—	1	—	—	—
Sub-Section III — Dementia	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sub-Section III — Delusional Insanity	—	—	—	1	—	—	—	—	—	—	—	2	—	—
Sub-Section III — G.P.I.	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Sub-Section III — Other Mental diseases ..	—	—	—	—	3	1	—	2	1	—	4	—	—	—
(2) Diseases of the Eye—														
Conjunctivitis	405	204	329	16	751	390	328	16	34	83	64	111	77	16
Keratitis	—	10	2	—	4	—	—	—	—	—	—	—	—	—
Ulceration of Cornea ..	3	6	—	—	9	8	—	—	—	—	—	2	—	—
Iritis	1	6	1	3	3	1	—	—	—	—	—	—	—	—
Optic Neuritis	—	—	—	—	—	—	—	—	—	—	—	—	—	6
Cataract	—	7	—	1	10	7	—	—	—	1	2	—	—	—
Pterygium	2	—	—	—	—	—	—	—	—	—	—	—	—	—
Entropion	—	—	2	—	—	—	—	—	—	—	—	—	—	—
Glaucoma	—	—	2	—	—	—	—	—	—	—	—	—	—	—
Hordeolum	—	—	—	5	—	—	—	—	—	—	—	—	—	—
Blepharitis	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Intra-ocular Hæmorrhage ..	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Ophthalmia Neonatorum ..	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Trachoma	—	—	—	—	—	36	—	—	—	—	—	—	—	—
Panophthalmitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Eye diseases	16	12	32	6	150	21	74	—	1	7	1	3	—	4
(3) Diseases of the Ear—														
Inflammation of Ext. Ear ..	—	51	—	—	210	102	89	—	19	5	25	—	18	39
,, Middle Ear	52	—	90	5	104	2	—	—	—	—	—	7	—	—
,, Mastoid ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Furunculosis	—	—	—	7	—	—	—	—	—	—	—	—	—	—
Carried forward ..	1,578	1,478	3,064	623	7,634	1,830	1,463	274	642	809	521	1,943	630	308

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Mwanza.	Namanyere.	Pangani.	Songea.	Singidda.	Tabora.	Tanga.	Tunduru.	Tukuyu.	Utete.	Total.
Brought forward ..	215	1,068	3,885	1,533	1,080	423	1,327	267	2,338	2,182	1,675	1,644	597	35,875
(d) *Local diseases*—continued														
Sub-Section III														
Idiocy	—	—	—	—	—	—	—	—	—	—	1	—	—	2
Mania	—	—	—	—	—	—	—	—	1	2	—	—	—	16
Melancholia	—	—	—	—	—	—	1	—	—	—	—	—	1	4
Dementia	—	—	—	—	—	—	—	—	2	—	—	—	—	2
Delusional Insanity	—	1	—	—	2	—	—	—	—	1	—	—	—	7
G.P.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Other Mental diseases ..	—	—	—	—	—	—	—	—	1	1	—	—	—	13
(2) Diseases of the Eye—														
Conjunctivitis	37	68	109	165	192	47	228	55	253	214	53	297	39	4,581
Keratitis	1	2	4	—	5	—	—	—	5	15	—	—	5	53
Ulceration of Cornea ..	—	2	3	5	—	—	1	—	1	27	1	7	—	75
Iritis	—	—	1	—	—	—	1	—	—	6	23	3	—	55
Optic Neuritis	—	1	—	—	—	—	—	—	—	—	—	—	—	1
Cataract	—	—	1	1	2	—	—	1	1	10	—	1	1	46
Pterygium	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Entropion	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Glaucoma	—	1	—	—	—	—	—	—	—	—	—	—	—	3
Hordeolum	—	—	—	—	—	—	—	—	—	—	—	—	—	5
Blepharitis	—	—	1	—	—	—	—	—	—	—	—	—	—	2
Intra-ocular Hæmorrhage ..	—	—	—	—	—	—	—	—	1	—	—	—	—	2
Ophthalmia Neonatorum ..	—	—	—	—	—	—	—	—	—	1	—	—	—	2
Trachoma	—	—	—	—	—	1	13	—	—	—	—	—	—	50
Panophthalmitis	—	—	—	—	—	—	1	—	—	2	—	—	—	3
Other Eye diseases	4	2	4	24	1	8	1	1	11	40	27	5	15	470
(3) Diseases of the Ear—														
Inflammation of Ext. Ear ..	—	18	81	78	—	—	117	—	3	82	7	103	—	1,047
,, Middle Ear	11	11	—	—	59	20	35	11	77	—	43	—	—	527
,, Mastoid ..	—	—	—	—	—	—	—	—	—	1	—	—	—	1
Furunculosis	—	—	—	—	—	—	—	—	—	—	—	—	—	7
Carried forward ..	268	1,174	4,089	1,806	1,341	499	1,725	335	2,694	2,584	1,829	2,060	658	42,854

N.B.—Total Intra-ocular Hæmorrhage 1. The case of Intra-ocular Hæmorrhage was in hospital both at Tabora and Dar-es-Salaam.

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hedji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilossa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.
Brought forward ..	1,578	1,178	3,064	623	7,634	1,830	1,463	274	642	809	521	943	630	308
(*d*) *Local diseases*—continued														
Other Ear diseases	27	55	5	33	101	1	65	8	2	59	13	68	2	13
(4) Diseases of the Nose—														
Rhinitis, Catarrhal	—	—	—	17	—	—	10	—	1	2	1	—	4	—
,, Suppurative ..	—	—	—	1	—	—	—	—	—	—	—	—	—	—
N. Polypus	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Foreign Body, Nose	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Diseases of Nose ..	3	16	2	—	23	—	—	—	—	1	—	—	—	1
(5) Circulatory System—														
Pericarditis, Serofibrinous ..	—	—	—	—	—	—	—	—	—	—	—	1	—	—
,, Suppurative ..	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Endocarditis	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Valvular, Mitral	1	—	2	—	3	—	1	—	—	6	2	—	—	—
,, Aortic	—	—	—	—	—	1	—	—	—	—	—	—	—	—
,, Tricuspid	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Myocarditis	—	—	—	—	—	1	—	—	—	—	—	—	—	—
Angina Pectoris	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tachycardia	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Syncope	—	—	—	2	—	—	—	—	—	—	—	—	—	—
Disordered action of heart ..	—	—	—	2	—	—	—	—	—	—	—	—	—	×
Aneurysm	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Phlebitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Thrombosis of Veins	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Varicose Veins	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases	2	30	—	—	12	2	2	—	—	—	2	—	—	3
(6) Respiratory System—														
Oedema Glottis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Laryngitis	1	36	1	16	9	—	2	—	—	—	—	7	—	3
Bronchitis	279	429	720	111	2,178	639	1,054	133	152	383	299	672	296	399
Asthma	—	47	3	10	79	6	8	—	1	-	2	2	23	2
Carried forward ..	1,892	2.091	3.798	817	10,039	2,480	2,605	415	798	1,263	840	1,693	955	730

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Mwanza.	Namanyere.	Pangani.	Songea.	Singidda.	Tabora.	Tanga.	Tunduru.	Tukuyu.	Utete.	Total.
Brought forward ..	268	1,174	4,089	1,806	1,341	499	1,725	335	2,694	2,584	1,829	2,060	658	42,854
(*d*) *Local diseases*—continued														
Other Ear diseases	3	4	2	41	—	—	—	1	25	93	—	—	14	635
(4) Diseases of the Nose—														
Rhinitis, Catarrhal	—	4	2	—	—	—	—	3	—	2	—	—	—	46
,, Suppurative ..	—	—	—	—	—	—	—	—	—	—	—	—	—	1
N. Polypus	—	—	—	1	—	—	—	—	—	1	—	—	—	2
Foreign Body, Nose	—	—	—	—	—	—	—	—	—	1	—	—	—	1
Other Diseases of Nose ..	—	—	—	3	—	—	—	—	19	—	—	—	1	69
(5) Circulatory System—														
Pericarditis, Serofibrinous ..	—	—	—	—	—	—	—	—	—	2	—	—	—	3
,, Suppurative ..	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Endocarditis	—	—	—	—	—	—	1	—	—	3	—	—	—	5
Valvular, Mitral	—	2	2	1	—	6	1	—	1	2	—	2	—	32
,, Aortic	—	—	—	—	—	2	—	—	1	—	—	—	—	4
,, Tricuspid	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Myocarditis	—	—	—	—	—	—	—	—	—	4	—	—	—	5
Angina Pectoris	—	—	—	—	1	—	—	—	—	—	—	—	—	1
Tachycardia	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Syncope	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Disordered action of heart ..	—	—	6		2	—	1	—	—	1	—	—	—	12
Aneurysm	—	—	—	—	—	—	—	—	2	1	—	—	—	3
Phlebitis	—	1	1	—	—	—	—	—	—	—	—	—	—	2
Thrombosis of Veins.. ..	—	2	—	—	—	—	—	—	—	—	—	—	—	3
Varicose Veins	—	—	—	—	2	—	—	—	—	—	—	—	—	2
Other diseases	—	—	2	—	2	—	—	—	2	18	20	—	1	98
(6) Respiratory System—														
Oedema Glottis	—	—	—	—	—	—	—	—	—		—	1	—	1
Laryngitis	—	—	14	18	16	—	12	—	3	—	17	8	6	169
Bronchitis	68	322	386	357	805	171	660	147	852	1,192	342	373	227	13,646
Asthma	—	10	4	—	—	34	2	1	2	2	5	2	—	248
Carried forward ..	339	1,519	4,508	2,227	2,169	712	2,402	487	3,601	3,906	2,213	2,446	907	57,847

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hadji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilossa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.
Brought forward ..	1,892	2,091	3,798	817	10,039	2,480	2,605	415	798	1,263	840	1,693	955	730
(*d*) ***Local diseases***—continued														
Hoemoptysis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis of Lungs ..	—	—	8	4	18	—	—	—	—	—	—	—	1	—
Pleurisy	4	10	—	1	20	—	1	—	1	1	—	—	—	8
Empyema	—	—	—	—	2	—	—	—	—	—	—	—	—	—
Emphysema	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gangrene of Lungs	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Abscess of Lungs	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Broncho-Pneumonia	6	4	1	3	26	4	3	—	1	—	—	4	2	5
Other Res. diseases	498	9	—	4	96	7	1	—	—	—	—	2	—	19
(7) Digestive System—														
Caries of Teeth	227	82	98	21	375	92	219	13	44	140	142	40	109	16
Pyorrhœa Alveolaris.. ..	—	—	—	1	—	—	—	—	—	—	—	1	—	—
Gingivitis	—	—	1	4	—	—	—	—	—	—	—	—	—	—
Gum Boil	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Stomatitis	1	12	102	6	65	7	30	—	—	24	10	3	1	4
Caries of Jaw	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Glossitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Inflammation of the Fauces	17	53	18	—	103	10	68	2	7	1	6	1	29	11
,, ,, Tonsils	39	6	96	13	16	19	4	—	4	1	2	2	—	23
Peritonsilar Abscess	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Vincent's Angina	—	—	—	2	—	—	—	—	—	—	—	—	—	—
Inflammation of Parotid Gland	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Foreign Body in Pharynx ..	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Pharyngitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gastritis	1	15	—	21	45	3	—	—	2	—	—	2	2	4
Hæmatemesis..	—	—	—	—	—	—	2	—	—	—	—	1	—	—
Ulceration of Stomach ..	1	—	1	—	—	—	—	—	1	—	—	—	—	—
Dilatation of Stomach ..	—	—	—	—	—	—	—	—	—	—	—	—	—	5
Carried forward ..	2,686	2,282	4,125	899	10,805	2,622	2,933	430	858	1,430	1,000	1,749	1,090	825

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Mwanza.	Namanyere.	Pangani.	Songea.	Singidda.	Tabora.	Tanga.	Tunduru.	Tukuyu.	Utete.	Total.
Brought forward ..	339	1,519	4,508	2,227	2,169	712	2,402	487	3,601	3,906	2,213	2,446	907	57,847
(*d*) *Local diseases*—continued														
Hoemoptysis	—	—	—	—	1	—	—	—	—	—	—	—	—	1
Tuberculosis of Lungs ..	3	7	—	—	—	—	—	1	19	36	—	—	—	97
Pleurisy	—	2	3	5	9	3	3	4	28	28	—	9	10	150
Empyema	—	—	1	—	—	—	—	—	—	—	—	—	—	3
Emphysema	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gangrene of Lungs	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Abscess of Lungs	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Broncho-Pneumonia.. ..	—	—	2	2	—	2	1	—	6	3	11	3	2	91
Other Res. diseases	—	1	8	56	—	—	1	—	3	21	—	49	5	780
(7) Digestive System—														
Caries of Teeth	71	79	143	99	86	95	335	19	135	245	203	573	83	3,784
Pyorrhœa Alveolaris.. ..	—	—	7	—	—	1	—	—	—	—	—	21	—	31
Gingivitis	—	—	—	—	—	—	—	—	—	—	—	—	—	5
Gum Boil	—	—	—	—	—	—	—	—	1	—	—	—	—	1
Stomatitis	—	9	4	23	17	1	153	6	14	21	—	30	4	547
Caries of Jaw	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Glossitis	—	—	—	—	—	—	—	1	—	—	—	—	—	1
Inflammation of the Fauces														
,, ,, Tonsils	7	7	16	7	22	12	47	5	25	213	11	—	8	706
Peritonsilar Abscess	2	21	15	18	3	1	38	4	513	26	11	20	8	905
Vincent's Angina	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Inflammation of Parotid	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Gland	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Foreign Body in Pharynx ..	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Pharyngitis	—	—	—	—	—	—	5	—	10	2	—	—	—	17
Gastritis	—	—	—	9	20	1	2	—	12	7	88	2	—	236
Hæmatemesis..	—	—	—	—	5	—	—	—	—	—	—	—	—	8
Ulceration of Stomach ..	—	—	—	—	—	—	—	—	3	—	—	—	—	6
Dilatation of Stomach ..	—	—	—	—	1	—	—	—	—	—	—	—	—	6
Carried forward ..	422	1,645	4,707	2,446	2,333	828	2,987	527	4,370	4,508	2,537	3,153	1,027	65,228

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hadji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilossa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.
Brought forward ..	2,686	2,282	4,125	899	10,805	2,622	2,933	430	858	1,430	1,000	1,749	1,099	825
(*d*) ***Local diseases***—continued														
Stricture of Stomach ..	—	—	—	—	—	—	—	—	—	—	—	—	1	7
Dyspepsia	4	109	2	35	49	55	14	—	—	4	4	9	36	—
Vomiting	—	—	—	—	—	—	1	—	—	—	—	—	—	—
Enteritis	4	1	—	13	—	—	—	—	—	—	—	—	—	—
Appendicitis	3	2	—	—	3	1	—	—	—	—	—	2	—	—
Tuberculosis of Intestine ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Colitis	11	11	—	4	44	—	—	—	—	—	—	3	2	3
Ulceration of Intestines ..	—	—	3	1	—	—	—	—	1	—	—	—	—	—
Sprue	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hernia	2	3	21	3	31	4	—	1	2	—	1	—	1	—
Diarrhœa	161	92	73	56	423	197	271	3	33	97	21	39	45	93
Constipation	129	215	924	17	849	397	380	27	11	130	70	85	171	194
Colic	71	176	—	15	362	107	19	32	37	28	43	56	26	48
Intestinal Obstruction ..	2	—	1	1	—	—	—	—	—	—	—	—	—	—
Hæmorrhoids	—	12	9	2	16	2	—	—	—	—	—	—	1	3
Fistula in Ano	—	—	—	3	—	—	—	—	—	—	—	—	—	—
Prolapse of Rectum	—	—	3	—	—	—	—	—	—	—	—	—	—	—
Pancreatitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hepatitis (*a*) Acute	2	6	—	3	26	1	—	—	—	—	1	—	—	1
,, (*b*) Abscess ..	1	—	—	—	—	—	1	—	—	—	—	1	—	—
Cirrhosis of Liver	—	—	—	—	9	—	—	—	1	—	—	—	1	—
Jaundice	—	12	—	—	4	—	—	1	1	—	1	1	1	1
Cholecystitis	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Gall Stone	1	—	—	—	1	—	—	—	—	—	—	2	—	—
Peritonitis	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Ascites	1	—	7	—	1	1	—	—	1	—	—	5	—	1
Visceroptosis	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases of Digestive System	2	62	—	—	82	1	2	—	—	—	—	1	—	57
Carried forward ..	3,081	2,983	5,168	1,053	12,705	3,388	3,621	494	946	1,689	1,141	1,953	1,384	1,233

Return of Diseases (In and Out-Patients) for the Year 1923, by Stations—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Mwanza.	Namanyere.	Pangani.	Songea.	Singidda.	Tabora.	Tanga.	Tunduru.	Tukuyu.	Utete.	Total
Brought forward ..	422	1,645	4,707	2,446	2,333	828	2,987	527	4,370	4,508	2,537	3,153	1,027	65,228
(*d*) *Local diseases*—continued														
Stricture of Stomach ..	—	—	—	—	—	—	—	—	—	—	—	—	2	10
Dyspepsia	2	—	17	18	3	1	168	13	51	134	32	43	22	825
Vomiting	—	—	—	—	—	—	—	1	—	—	—	—	—	2
Enteritis	—	—	—	—	—	—	—	—	—	—	47	—	—	65
Appendicitis	—	—	1	1	1	—	—	—	2	—	—	3	—	21
Tuberculosis of Intestine ..	—	1	—	—	—	—	—	—	—	—	—	—	—	1
Colitis	—	—	—	—	—	—	3	—	—	9	—	2	—	21
Ulceration of Intestines ..	—	—	—	—	—	—	—	—	—	—	—	—	—	5
Sprue	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hernia..	1	2	2	10	4	4	1	2	17	70	16	2	6	206
Diarrhœa	43	248	137	190	216	22	197	27	264	229	47	194	46	3,464
Constipation	30	145	412	269	200	83	153	99	634	712	23	165	75	6,590
Colic	16	19	467	3	22	2	166	27	88	53	10	7	88	1,988
Intestinal Obstruction ..	—	—	—	—	—	—	—	—	—	—	—	—	—	4
Hæmorrhoids	1	4	—	3	2	2	1	—	5	9	1	—	—	73
Fistula in Ano	—	—	—	—	—	—	—	—	2	—	—	—	—	5
Prolapse of Rectum	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Pancreatitis	—	—	1	—	—	—	—	—	—	—	—	—	—	1
Hepatitis (*a*) Acute	1	3	8	—	—	4	—	1	1	11	—	2	—	71
,, (*b*) Abscess ..	—	1	—	—	—	—	—	—	—	—	—	—	—	4
Cirrhosis of Liver	—	1	1	1	—	1	—	—	—	3	—	1	—	19
Jaundice	—	—	1	5	2	2	—	—	1	8	7	1	3	52
Cholecystitis	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Gall Stone	—	—	—	—	—	—	—	—	—	—	—	—	—	4
Peritonitis	—	—	—	1	—	—	—	—	1	—	—	—	—	3
Ascites	—	—	4	2	—	1	—	—	—	1	—	—	2	27
Visceroptosis	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Other diseases of Digestive System	1	—	2	6	—	1	—	—	24	15	—	1	9	266
Carried forward ..	517	2,069	5,760	2,957	2,783	951	3,676	697	5,460	5,762	2,720	3,574	1,280	79,031

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Aruhsa.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hadji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilossa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.
Brought forward ..	3,081	2,983	5,168	1,053	12,705	3,388	3,621	494	946	1,689	1,141	1,953	1,384	1,233
(*d*) ***Local diseases***—continued														
(8) Lymphatic System—														
Inflammation of Lymphatic Gland	14	19	—	1	61	3	24	—	2	1	16	4	—	—
Suppuration Lymphatic Gland	1	12	16	1	2	4	2	—	7	—	1	—	1	—
Lymphangitis	2	—	—	1	5	1	—	—	1	—	—	—	—	2
Tuberculosis of Lymphatic G.	10	—	—	—	—	—	—	—	—	—	—	—	—	—
Splenitis	—	7	—	—	4	28	—	—	—	—	—	4	—	—
Splenomegaly	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases	—	2	—	—	15	—	—	—	—	—	6	5	—	—
(9) Urinary System—														
Acute Nephritis	—	—	—	—	1	—	—	—	—	—	—	2	—	1
Chronic Nephri ..	—	—	2	3	3	1	—	—	—	2	—	4	3	—
Renal Colic	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pyelitis	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Calculus	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Cystitis	1	1	—	2	23	—	—	—	—	—	—	1	1	2
Vesical Calculus	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Suppression	—	—	—	—	3	—	—	—	—	—	—	—	—	—
Hæmaturia	—	12	2	—	1	1	2	—	—	—	—	—	1	2
Chyluria	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Extravasation of Urine ..	—	—	6	—	—	—	—	—	—	—	—	—	—	—
Urethral Fistula	—	—	19	3	—	—	—	—	—	—	—	—	—	—
Periurethral Abscess.. ..	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Phosphaturia	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Others, Urinary System ..	2	11	—	—	2	—	—	—	—	—	—	—	—	1
(10) GenerativeSystem— ..														
Male Organs														
Balanitis	4	—	—	—	—	—	—	—	—	—	—	—	—	—
Paraphymosis	—	—	3	—	—	—	—	—	—	—	—	—	—	—
Carried forward ..	3,116	3,047	5,217	1,066	12,825	3,426	3,649	494	956	1,692	1,164	1,973	1,390	1,242

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Mwanza.	Namanyere.	Pangani.	Songea.	Singidda.	Tabora.	Tanga.	Tunduru.	Tukuyu.	Utete.	Total.
Brought forward ..	517	2,069	5,760	2,957	2,783	951	3,676	697	5,460	5,762	2,720	3,574	1,280	79,031
(*d*) *Local diseases*—continued														
(8) Lymphatic System—														
Inflammation of Lymphatic Gland	6	7	19	24	19	7	1	1	33	98	8	12	2	382
Suppuration Lymphatic Gland	6	1	—	—	1	2	—	1	10	—	—	11	—	79
Lymphangitis	—	—	—	1	—	7	—	—	4	8	53	2	—	87
Tuberculosis of Lymphatic G.	—	—	—	—	—	—	—	—	—	—	—	—	—	10
Splenitis	—	—	14	—	10	—	1	1	3	4	—	8	—	85
Splenomegaly	—	—	—	—	—	—	—	—	6	—	—	—	—	6
Other diseases	—	1	—	—	—	—	—	—	—	—	—	—	—	29
(9) Urinary System—														
Acute Nephritis	—	2	—	—	—	—	—	—	—	12	—	1	—	19
Chronic Nephritis	—	—	—	—	—	1	—	4	—	5	—	—	—	28
Renal Colic	—	—	—	—	—	1	—	1	—	—	—	1	—	3
Pyelitis	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Calculus	—	—	2	—	—	—	—	—	—	—	—	1	—	4
Cystitis	—	1	—	—	1	1	—	—	4	17	3	—	—	58
Vesical Calculus	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Suppression	—	—	—	—	—	—	—	—	1	—	—	—	—	4
Hæmaturia	—	—	2	2	3	—	1	—	—	3	—	3	—	35
Chyluria	—	—	—	—	—	—	—	—	—	—	1	—	—	1
Extravasation of Urine ..	—	—	—	—	—	—	—	—	—	—	—	—	—	6
Urethral Fistula	—	—	—	—	—	—	—	—	3	—	—	—	—	25
Periurethral Abscess	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Phosphaturia	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Others, Urinary System ..	—	—	—	1	—	—	—	—	—	—	—	—	—	17
(10) Generative System—														
Male Organs—														
Balanitis	—	—	—	—	—	—	—	—	3	—	—	—	—	7
Paraphymosis	—	—	2	—	—	—	—	—	1	1	—	—	—	7
Carried forward ..	529	2,081	5,799	2,985	2,817	970	3,679	705	5,528	5.910	2,785	3,613	1,282	79,926

RETURN OF DISEASES (IN AND OUT-PATIENTS FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hedji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilossa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.
Brought forward ..	3,116	3,047	5,217	1,066	12,825	3,426	3,649	494	956	1,692	1,164	1,973	1,390	1,242
(*d*) *Local diseases*—continued														
Urethritis	—	2	—	6	8	3	—	—	—	—	—	2	—	—
Gleet	8	—	13	—	1	—	—	—	—	—	—	—	—	—
Stricture	3	7	35	—	7	—	—	—	—	1	—	—	—	—
Prostatitis	—	—	—	3	—	—	—	—	1	—	—	—	—	—
Soft Chancre	15	13	37	—	13	2	15	—	3	—	2	—	4	1
Condyloma	—	6	—	—	7	—	2	1	—	—	—	4	—	—
Inflammation of Scrotum	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Hydrocele	2	10	—	—	23	3	3	3	—	—	1	2	3	5
Orchitis	8	32	12	—	67	17	11	3	2	1	3	3	6	1
Epididymitis	5	—	—	2	9	1	1	4	—	—	—	—	—	—
Gangrene of Testicle ..	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Mastitis (Male)	—	—	—	3	—	—	—	—	—	—	—	—	—	—
Varicocele	—	—	—	2	—	—	—	—	—	—	—	—	—	
Cyst of Testicle	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hæmatocele	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Stone in Urethra	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases	9	5	—	—	14	1	—	—	—	—	—	—	—	—
Female Organs—														
Ovaritis	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Ovarian Cyst	—	—	—	—	3	—	—	—	—	—	—	—	—	—
Malignant Tum. of Ovary ..	—	—	—	—	—	1	—	—	—	—	—	—	—	—
Uterine Polypus	—	—	—	—	—	1	—	—	—	—	—	—	—	—
Endometritis	—	1	—	—	4	—	—	—	1	—	—	—	1	—
Displacement of Uterus ..	—	1	—	4	1	—	—	—	—	4	—	—	—	1
Vaginitis	1	—	—	1	—	—	—	—	—	—	—	—	—	—
Amenorrhœa	—	9	—	4	—	—	—	—	—	—	—	—	—	1
Dysmenorrhœa	3	9	1	1	2	—	—	—	—	—	4	—	1	1
Menorrhagia	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Leucorrhœa	—	—	—	—	3	—	—	—	—	—	—	—	1	—
Carried forward ..	3,171	3,142	5,315	1,093	12,987	3,455	3,681	505	763	1,699	1,174	1,984	1,406	1,253

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Mwanza.	Namanyere.	Pangani.	Songea.	Singidda.	Tabora.	Tanga.	Tunduru.	Tukuyu.	Utete.	Total.
Brought forward ..	529	2,081	5,799	2,985	2,817	970	3,679	705	5,528	5,910	2,785	3,613	1,282	79,926
(*d*) *Local diseases*—continued														
Urethritis	—	—	3	11	1	1	—	—	1	3	—	—	—	41
Gleet	—	—	—	—	—	—	—	—	—	—	14	—	—	36
Stricture	—	1	2	—	—	—	—	—	5	24	3	3	—	91
Prostatitis	—	—	1	—	—	—	—	—	—	1	—	1	—	7
Soft Chancre	—	—	3	1	—	1	6	1	4	14	11	2	1	149
Condyloma	—	4	—	—	—	1	—	—	—	1	—	—	1	27
Inflammation of Scrotum	—	—	—	4	—	—	—	—	—	—	2	6	—	13
Hydrocele	—	1	—	13	1	9	—	—	19	82	—	1	12	193
Orchitis	3	6	12	7	8	13	3	2	10	75	10	3	8	326
Epididymitis	—	—	1	3	—	—	—	—	—	10	—	1	—	37
Gangrene of Testicle ..	—	—	—	—	—	—	—	—	1	—	—	—	—	2
Mastitis (Male)	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Varicocele	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Cyst of Testicle	—	—	—	—	—	—	—	—	—	1	—	—	—	1
Hæmatocele	—	—	—	—	—	—	—	—	—	8	—	—	—	8
Stone in Urethra	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Other diseases	—	—	—	1	1	—	—	—	5	6	—	3	2	47
Female Organs—														
Ovaritis	—	—	—	1	—	—	—	—	—	—	—	—	—	2
Ovarian Cyst	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Malignant Tum. of Ovary ..	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Uterine Polypus	—	—	—	—	—	—	—	—	1	—	—	—	—	2
Endometritis	—	1	—	—	—	—	—	—	1	—	—	—	—	9
Displacement of Uterus ..	—	—	—	—	—	—	—	—	—	1	2	—	—	14
Vaginitis	—	—	9	1	—	—	—	—	—	4	—	—	—	16
Amenorrhœa	—	—	1	—	3	1	—	—	—	—	—	—	—	19
Dysmenorrhœa	—	—	—	3	12	3	1	—	—	5	5	—	—	51
Menorrhagia	—	—	4	2	4	—	—	—	1	3	—	—	3	18
Leucorrhœa	—	—	1	3	—	—	1	—	—	1	—	—	3	13
Carried forward ..	532	2,094	5,836	3,035	2,847	999	3,690	708	5,576	6,149	2,832	3,634	1,312	81,058

Return of Diseases (In and Out-Patients) for the Year 1923, by Stations—*continued.*

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hedji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilossa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.
Brought forward ..	3,171	3,142	5,315	1,093	12,987	3,455	3,681	505	763	1,699	1,174	1,984	1,406	1,253
(*d*) *Local diseases*—continued														
Abortion	—	—	6	4	4	—	1	—	—	1	—	—	1	—
Delayed Labour	—	—	—	2	4	—	6	—	1	—	—	—	—	—
Obstructed Labour ..	—	—	2	—	—	—	—	—	—	—	—	—	—	—
Postpartum Hæmorrhage	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Retained Placenta ..	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Premature Birth	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hydramnios	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Septicæmia ..	—	—	—	2	1	1	—	—	—	—	—	—	—	—
Pelvic Abscess	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Mastitis	2	3	—	—	—	—	—	—	—	—	1	—	—	2
Abscess of Breast	—	—	—	—	—	—	4	—	—	—	—	—	—	1
Ulcerative Granuloma of Pudenda	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases	3	5	—	24	7	1	—	—	—	—	—	—	—	—
(11) Organs of Locomotion—														
Osteitis	1	5	—	—	—	—	—	—	—	—	—	—	—	—
Arthritis	11	48	50	3	10	24	56	—	63	1	22	2	14	—
Bursitis	—	—	—	2	11	—	—	—	—	—	—	—	—	—
Myositis	178	—	—	—	—	—	—	—	—	17	2	—	1	1
Osteo myelitis	5	—	—	—	—	—	—	—	—	—	—	—	—	—
Periostitis	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Synovitis	13	—	3	7	26	4	—	—	—	—	—	3	—	—
Myalgia	—	—	320	28	—	33	281	57	15	—	36	265	20	1
Ankylosis	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Caries of Bone	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ganglion	—	—	—	—	—	—	—	—	—	—	—	5	—	—
Rheumatoid Arthritis ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tenosynovitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases	11	199	—	1	417	2	—	—	—	1	9	—	—	—
Carried forward ..	3,396	3,402	5,698	1,167	13,468	3,520	4,029	562	842	1,719	1,244	2,259	1,442	1,258

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Mwanza.	Namanyere.	Pangani.	Songea.	Singidda.	Tabora.	Tanga.	Tunduru.	Tukuyu.	Utete.	Total.
Brought forward ..	532	2,094	5,836	3,035	2,847	999	3,690	708	5,576	6,149	2,832	3,634	1,312	81,058
(*d*) ***Local diseases***—continued														
Abortion	—	—	1	2	6	—	1	—	4	2	—	3	—	36
Delayed Labour	—	—	1	4	—	—	1	—	3	1	—	1	—	24
Obstructed Labour ..	—	—	—	—	—	—	—	—	—	1	—	—	—	3
Postpartum Hæmorrhage	—	—	1	—	—	—	—	—	—	—	—	1	—	3
Retained Placenta ..	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Premature Birth	—	—	—	—	1	—	—	—	—	—	—	—	—	1
Hydramnios	—	—	—	—	—	—	1	—	—	—	—	—	—	1
Puerperal Septicæmia ..	—	—	—	—	—	1	—	—	—	1	—	3	—	9
Pelvic Abscess	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Mastitis	—	2	—	—	11	—	—	—	7	—	4	2	—	34
Abscess of Breast	2	—	2	1	2	—	7	—	—	—	3	5	—	27
Ulcerative Granuloma of Pudenda	—	—	—	—	1	—	—	—	—	—	—	—	—	1
Other diseases	1	—	19	—	2	2	2	—	1	1	—	2	2	72
(11) Organs of Locomotion—														
Osteitis	1	3	—	—	28	—	—	—	1	32	7	3	—	81
Arthritis	—	4	4	22	156	5	7	1	64	179	15	5	5	771
Bursitis	—	—	2	—	2	—	1	1	—	1	2	1	—	23
Myositis	—	—	11	—	—	—	264	—	—	—	45	1	—	520
Osteo myelitis	—	—	—	—	—	—	—	—	—	—	—	—	—	5
Periostitis	—	—	—	—	—	—	—	—	1	2	—	—	—	4
Synovitis	—	1	15	6	—	14	53	14	1	—	—	6	—	166
Myalgia	5	51	97	—	—	49	—	4	553	1	—	187	48	2,051
Ankylosis	—	—	—	—	—	2	—	—	—	—	—	—	—	3
Caries of Bone	—	2	—	1	—	—	—	—	9	—	—	—	—	17
Ganglion	—	—	2	—	—	—	1	—	—	—	—	2	—	5
Rheumatoid Arthritis ..	—	—	—	1	—	—	—	—	—	—	—	—	—	1
Tenosynovitis	—	—	—	—	—	—	—	—	—	1	—	—	—	1
Other diseases	6	1	—	48	—	3	—	1	5	54	—	1	—	758
Carried forward ..	547	2,158	5,991	3,120	3,056	1,075	4,029	729	6,225	6,425	2,908	3,857	1,367	58,677

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS.

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hadji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilossa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.
Brought forward ..	3,396	3,402	5,698	1,167	13,468	3,520	4,029	562	842	1,719	1,244	2,259	1,442	1,258
(*d*) *Local diseases*—continued														
(12) Connective Tissue—														
Cellulitis	86	18	56	5	465	35	92	—	5	1	64	9	50	—
Abscess	49	92	80	13	220	47	19	25	15	34	25	18	19	49
Other diseases	7	549	2	10	418	57	—	—	—	—	14	3	—	2
(13) Diseases of Skin—														
Urticaria	—	1	—	4	14	1	2	—	2	—	—	1	1	—
Eczema	10	13	17	7	50	6	30	—	4	5	23	5	18	3
Boil	35	56	—	24	294	24	23	28	—	50	30	22	48	13
Carbuncle	1	—	—	5	9	—	—	—	—	—	—	—	—	2
Herpes	—	1	—	1	8	1	5	—	—	1	1	2	—	3
Psoriasis	1	1	1	1	2	—	5	—	—	—	—	—	—	2
Oriental Sore	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tinea	6	11	11	7	27	2	—	—	—	—	6	3	—	5
Scabies	318	77	344	—	211	149	1,035	64	31	50	125	702	112	37
Acne	1	—	—	1	—	1	10	—	—	—	—	—	—	—
Prickly Heat	1	—	—	2	5	6	—	—	—	1	—	—	—	—
Ulcers	860	—	883	5	—	277	—	110	82	623	579	411	760	50
Keloid	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Seborrhoea	—	—	—	2	—	—	—	—	—	—	—	1	—	—
Impetigo	—	—	—	4	—	—	—	—	—	—	—	—	—	—
Blastomycosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other diseases	4	32	1	31	74	22	—	—	1	1	44	—	—	6
(*e*) *Injuries* (*General*)—	—	1	—	5	2,789	10	28	—	—	15	—	—	—	6
Local	1,091	356	600	79	180	1,047	1,954	185	342	367	272	159	360	318
(*f*) *Tumours* unclassified —	—	2	36	—	17	—	—	—	8	1	—	—	—	—
Dermoid Cyst	1	—	—	—	—		—	—	—	—	—	—	—	—
Cystic Hygroma	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Sebaceous Cyst	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cyst	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Carried forward ..	5,868	4,612	7,729	1,373	18,251	5,200	7,232	974	1,332	2,868	2,427	3,596	2,810	1,754

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Mwanza.	Namanyere.	Pangani.	Songea.	Singidda.	Tabora.	Tanga.	Tunduru.	Tukuyu.	Utete.	Total.
Brought forward	547	2,158	5,991	3,120	3,056	1,075	4,028	729	6,225	6,425	2,908	3,857	1,364	85,677
(*d*) *Local diseases*—continued														
(12) Connective Tissue—														
Cellulitis	9	17	92	39	85	—	—	1	33	236	—	92	17	1,507
Abscess	79	77	53	57	37	39	52	14	44	163	32	84	21	1,457
Other diseases	—	—	—	5	—	—	4	1	1	436	—	—	—	1,509
(13) Diseases of Skin—														
Urticaria	—	1	3	—	—	2	—	—	2	6	—	2	1	43
Eczema	3	6	15	35	15	22	6	—	31	49	25	121	7	526
Boil	13	26	26	79	27	12	106	4	64	64	13	9	39	1,129
Carbuncle	—	2	—	—	1	—	2	—	2	—	1	2	3	30
Herpes	2	—	16	—	3	—	—	1	—	1	15	1	4	66
Psoriasis	3	1	—	—	—	12	—	—	5	11	—	—	—	45
Oriental Sore	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tinea	5	8	1	—	17	—	2	4	1	10	5	—	4	135
Scabies	154	70	172	202	215	29	383	173	107	70	168	229	48	5,275
Acne	—	—	—	—	—	—	—	—	—	—	—	—	—	13
Prickly Heat	—	—	—	—	1	—	—	—	3	1	2	1	—	24
Ulcers	384	580	694	723	396	622	1,421	192	913	715	632	505	103	12,520
Keloid	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Seborrhoea	—	—	2	—	—	—	—	—	—	—	—	—	—	5
Impetigo	—	—	3	—	—	—	—	—	—	—	—	—	—	7
Blastomycosis	—	—	—	—	—	—	—	—	—	2	—	—	—	2
Other diseases	4	—	3	—	—	2	—	—	13	44	—	7	4	293
(*e*) *Injuries* (*General*)—	—	1	18	—	—	14	19	—	2	—	—	—	—	2,908
Local	273	217	820	451	523	21	179	114	1,840	957	362	483	240	13,790
(*f*) *Tumours* unclassified—	—	—	14	—	17	1	1	—	—	32	7	5	5	146
Dermoid Cyst	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Cystic Hygroma	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Sebaceous Cyst	—	—	3	—	—	—	—	—	—	—	—	—	—	3
Cyst	—	—	—	—	—	3	—	—	7	—	—	12	—	22
Carried forward	1,476	3,164	7,226	4,711	4,393	1,854	6,203	1,233	9,293	9,222	4,170	5,410	1,864	127,135

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hadji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilossa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.
Brought forward ..	5,868	4,612	7,729	1,373	18,251	5,200	7,232	974	1,332	2,868	2,427	3,596	2,810	1,754
(*f*) ***Tumours***—continued.														
Lipoma	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Papilloma	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Gumma	—	—	—	—	—	1	—	—	—	—	—	—	1	—
Multiple Osteomata	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fibromata (Ex.)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Innocent Growth	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Abdominal Tumour	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Epulis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Carcinoma Stomach	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Carcinoma Abdominal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Carcinoma of Liver	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Epithelioma Arm	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, of Penis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(*g*) *Malformations*—														
Phimosis	2	4	1	—	—	2	—	—	—	—	—	—	—	—
Supernumerary Toe	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Congen defect, Urethra.. ..	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Atresia Vaginœ	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Cleft Plate	1	—	—	—	—	—	—	—	—	—	—	—	—	—
(*h*) *Poisons*—														
Belladonna	1	—	—	—	—	—	—	—	—	—	—	—	1	—
Arsenic	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Food Poisoning	—	—	—	—	—	—	—	—	—	—	1	—	—	—
Serum Sickness	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bee Sting	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Insect Bite	—	3	—	—	—	—	—	—	—	—	—	—	—	—
Snake Bite	—	1	3	—	—	—	—	—	1	—	1	—	—	1
Centipede Bite	—	—	—	2	—	—	—	—	—	—	—	—	—	—
Scorpion Sting	—	—	—	—	—	—	—	12	—	—	—	—	—	—
Carried forward ..	5,878	4,620	7,733	1,375	18,251	5,203	7,232	986	1,333	2,868	2,429	3,596	2,812	1,757

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Mikindani.	Morotoro.	Moshi.	Mwanza.	Namanyere.	Pangani.	Songea.	Singidda.	Tabora.	Tanga.	Tunduru.	Tukuyu.	Utete.	Total.
Brought forward ..	1,476	3,164	7,226	4,711	4,393	1,854	6,203	1,233	9,293	9,222	4,170	5,410	1,864	127,135
(*f*) *Tumours* continued.														
Lipoma	—	—	—	—	—	—	—	—	2	—	—	9	—	12
Papilloma	—	—	—	—	—	—	—	1	—	—	—	1	—	3
Gumma	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Multiple Osteomata	—	—	—	1	—	—	—	—	—	—	—	—	—	1
Fibromata (Ex.)	—	—	—	2	—	—	—	—	3	—	—	2	—	7
Innocent Growth	—	—	—	1	—	—	—	—	—	—	—	—	—	1
Abdominal Tumour	—	—	—	1	—	—	—	—	—	—	—	—	—	1
Epulis	—	—	—	—	—	—	—	—	2	—	—	—	—	2
Carcinoma Stomach	—	—	—	1	—	—	—	—	—	—	—	—	—	2
Carcinoma Abdominal	—	—	1	—	—	—	—	—	—	—	—	—	—	1
Carcinoma of Liver	—	—	2	—	—	—	—	—	—	—	—	—	—	2
Epithelioma Arm	—	—	1	—	—	—	—	—	—	—	—	—	—	1
,, of Penis	—	—	—	1	—	—	—	—	—	—	—	—	—	1
(*g*) *Malformations*—														
Phimosis	—	—	—	—	—	4	—	—	2	14	—	2	—	31
Supernumerary Toe	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Congen defect, Urethra	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Atresia Vaginœ	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Cleft Plate	—	—	—	—	—	—	—	—	—	—	—	—	—	1
(*h*) *Poisons*—														
Belladonna	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Arsenic	—	—	—	—	—	—	—	—	1	—	—	—	—	1
Food Poisoning	—	—	—	—	—	—	—	—	3	—	—	—	—	4
Serum Sickness	—	—	1	—	—	—	—	—	—	—	—	—	—	1
Bee Sting	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Insect Bite	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Snake Bite	1	1	—	—	—	2	—	—	7	7	—	1	10	36
Centipede Bite	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Scorpion Sting	—	—	—	—	—	—	—	1	12	—	—	—	—	25
Carried forward ..	1,477	3,165	7,931	4,718	4,393	1,860	6,203	1,235	9,325	9,243	4,170	5,425	1,874	127,282

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hadji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilossa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.
Brought forward ..	5,878	4,620	7,733	1,375	18,257	5,203	7,232	986	1,333	2,868	2,429	3,596	3,596	1,757
(*h*) *Poisons*—continued														
Unspecified	3	—	—	—	3	3	—	—	1	—	—	—	—	—
(*i*) *Parasites—Animal*—														
Unclassified	—	—	3	—	—	—	—	—	—	—	—	—	—	—
(1) Protozoa	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(2) Trematoda (Flukes)—														
(*a*) Schist. hœmatobium ..	4	—	—	—	8	3	—	—	—	—	—	—	—	—
(*b*) Schist. mansoni	—	—	—	—	—	1	—	—	—	—	—	—	—	—
(*c*) Unclassified	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(3) Cestoda	—	—	—			—	—		—	—	—	—	—	—
Tænia Solium	2	—	20	—	15	9	4	—	—	—	2	39	—	31
,, Saginata	—	—	133	3	2	21	8	—	—	—	—	—	—	2
,, Unclassified	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(4) Nematoda	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Ascaris	682	—	39	—	4	5	5	—	—	1	—	1	1	—
Trichocephalus Dispar	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Dracunculus	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filaria (*a*) m.f. Bancrofti ..	—	—	—	—	17	—	—	—	2	—	—	—	—	—
(i) Elephantiasis of Leg ..	—	—	—	—	1	—	—	—	—	—	—	—	—	—
(ii) ,, Scrotum ..	1	—	—	—	9	—	—	—	—	—	—	—	—	1
(ii) ,, Clitoris ..	—	—	—			—	—	—	—	—	—	—	—	—
(iv) ,, Unclassified	—	5	8	—	2	1	—	—	—	—	—	1	—	—
(*b*) f. loa	—	—	—	—		—	—	—	—	—	—	—	—	—
Strongylus	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ankylostomiasis	13	74	—	2	130	—	3	—	6	46	56	—	16	4
Oxyuris	—	—	—	—	—	—	—	—	—	—	—	14	—	—
(5) Insecta	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Myiasis	1	—	—	1	—	—	—	—	—	2	2	—	—	—
Chiggers (D. penetrans) ..	1	105	10	—	22	—	—	—	3	—	64	1	61	—
Under observation	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	6,585	4,804	7,946	1,382	18,465	5,246	7,252	986	1,345	2,917	2,553	3,652	2,800	1,795

NOTES.—The totals do not include 57 accouchments included in return on page .

RETURN OF DISEASES (IN AND OUT-PATIENTS) FOR THE YEAR 1923, BY STATIONS—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Mwanza.	Namanyere.	Pangani.	Songea.	Singidda.	Tabora.	Tanga.	Tunduru.	Tukuyu.	Utete.	Total.
Brought forward ..	1,477	3,165	7,931	4,718	4,393	1,860	6,203	1,235	9,325	9,243	4,170	5,425	1,874	127,282
(*h*) *Poisons*—continued														
Unspecified	—	—	—	—	1	—	—	—	—	—	—	—	6	17
(*i*) *Parasites—Animal*—														
Unclassified	—	—	—	—	2	—	—	—	—	—	—	—	—	5
(1) Protozoa	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(2) Trematoda (Flukes)—														
(*a*) Schist. hœmatobium ..	—	—	—	1	29	—	—	1	1	6	—	4	—	57
(*b*) Schist. mansoni	—	1	—	—	—	—	—	—	—	—	—	—	—	2
(*c*) Unclassified	—	—	—	—	—	—	—	—	—	108	—	4	—	112
(3) Cestoda	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tænia Solium	—	27	40	—	—	—	2	—	8	8	4	—	8	219
,, Saginata	—	—	—	3	3	—	1	3	—	—	47	94	3	323
,, Unclassified	—	—	471	—	—	—	—	—	—	—	—	—	—	471
(4) Nematoda	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Ascaris	—	1	922	1	6	1	—	2	2	5	126	21	—	1,825
Trichocephalus dispar	—	2	—	—	—	—	—	—	—	—	—	—	—	3
Dracunculus	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filaria (*a*) m.f. Bancrofti ..	—	—	—	—	—	—	—	—	1	—	17	—	—	37
(i) Elephantiasis of Leg ..	—		3	1	3	1	—	—	4	1	—	—	—	15
(ii) ,, Scrotum ..	—	—	—	58	—	2	—	7	20	26	—	2	—	125
(iii) ,, Clitoris ..	—	—	—	—	—	—	—	—	1	—	—	—	—	1
(iv) ,, Unclassified	—	—	3	6	—	7	—	—	—	11	76	4	1	125
(*b*) f. loa	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strongylus	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ankylostomiasis	2	43	32	2	13	334	4	—	2	1,546	70	2	10	2,410
Oxyuris	—	—	—	—	1	—	—	—	—	—	—	1	—	16
(5) Insecta	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Myiasis	—	—	11	—	—	—	—	—	—	2	—	—	—	19
Chiggers (D. penetrans) ..	64	1	—	3	—	105	—	—	—	4	—	10	—	454
Under observation	—	—	—	—	—	—	—	—	—	—	—	16	—	16
Total	1,453	3,240	9,413	4,793	4,451	2,310	6,210	1,248	9,364	10,960	4,510	5,583	1,902	133,535

2. Returns from Mahenge and Musoma not received in time for inclusion.

TABLE XI.

RETURNS OF DISEASES AND DEATHS (IN-PATIENTS) AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1923.

Diseases.	In-Patients.					Out-Patients.			Total cases In and Out-Patients.
	Remaining in Hospital at the end of 1922.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total cases treated.	Remaining in Hospital at the end of 1923.	Males.	Females.	Total.	
(a) *Infective Diseases*—									
Beri Beri	1	1	—	2	—	—	—	—	2
Cerebro-spinal Fever	—	9	7	9	—	—	—	—	9
Chicken Pox.. ..	4	206	1	210	5	34	—	34	244
Cholera	—	—	—	—	—	—	—	—	—
Dengue	—	9	—	9	—	—	—	—	9
Diphtheria	—	—	—	—	—	—	—	—	—
Dysentery—									
(a) Amœbic ..	1	138	5	139	4	42	10	52	191
(b) Bacillary ..	4	45	1	49	1	21	8	29	78
(c) Unclassified ..	—	3	—	3	—	39	7	46	49
Endocarditis-infective	—	—	—	—	—	—	—	—	—
Enteric Fever ..	—	20	3	20	1	—	—	—	20
Paratyphoid Fever ..	1	—	—	1	—	—	—	—	1
Erysipelas	—	5	—	5	—	11	—	11	16
Gangrene	—	1	—	1	—	—	—	—	1
Gangosa	—	3	—	3	1	6	2	8	11
Gonorrhœa	40	434	2	474	26	1,123	190	1,313	1,787
Influenza	6	663	16	669	7	1,795	708	2,503	3,172
Kala Azar	—	—	—	—	—	—	—	—	—
Leprosy—									
(a) Nodular ..	1	11	1	12	1	13	10	23	35
(b) Anæsthetic ..	—	9	—	9	5	9	1	10	19
(c) Unclassified ..	—	1	—	1	—	—	—	—	1
Malaria—									
(a) Tertian ..	18	1,305	6	1,323	17	4,565	978	5,543	6,866
(b) Quartian ..	1	14	—	15	—	9	—	9	24
(c) Æstivo-autumnal ..	9	1,656	8	1,665	8	5,270	406	5,676	7,341
(d) Chronic Malaria	—	26	1	26	1	58	28	86	112
(e) Black-water ..	1	35	10	36	1	3	—	3	35
(f) Cerebral ..	—	2	2	2	—	—	—	—	2
(g) Unclassified ..	3	292	—	295	2	3,643	646	4,289	4,584
Measles	1	16	—	17	—	7	2	9	26
Mumps	—	64	—	64	4	22	6	28	92
Mycetoma	—	4	—	4	1	2	—	2	6
Malta Fever ..	1	—	—	1	—	—	—	—	1
Pellagra	—	—	—	—	—	—	—	—	—
Plague	—	1	1	1	—	—	—	—	1
Pneumonia, Acute Lobar	5	301	59	306	3	43	19	62	368
Pyogenic Infection—									
(a) Abscess ..	1	6	1	7	2	—	—	—	7
(b) Osteomyelitis	—	—	—	—	—	—	—	—	—
(c) Pyoemia ..	—	—	—	—	—	—	—	—	—
Rabies	—	—	—	—	—	—	—	—	—
Relapsing (Tick) Fever	—	91	—	91	2	28	—	28	119
Rheumatic Fever ..	—	22	1	22	2	37	11	48	70
Rubella	1	—	—	1	—	—	—	—	1
Sand-fly Fever ..	—	—	—	—	—	—	—	—	—
Septicæmia	1	5	4	6	—	—	—	—	6
Carried forward ..	99	5,398	129	5,497	94	16,777	3,032	19,809	25,306

Some cases of Blackwater Fever were transferred from one station to another and thus appear under two stations. The total number of cases is 35 as stated.

TABLE XI.—*continued.*

RETURNS OF DISEASES AND DEATHS (IN-PATIENTS) AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1923—*continued.*

	Diseases.	In-Patients.					Out-Patients.			Total cases In and Out-Patients
		Remaining in Hospital at the end of 1922.	Yearly Total.		Total cases treated.	Remaining in Hospital at the end of 1923.	Males.	Females.	Total.	
			Admissions.	Deaths.						
	Brought forward ..	99	5,398	129	5,497	94	16,777	3,032	19,809	25,306
	Infective Diseases—continued									
	Seven Days' Fever ..	—	7	—	7	—	—	—	—	7
	Trypanosomiasis (Sleeping Sickness)	—	3	3	3	—	—	—	—	3
	Small-pox	—	23	3	23	—	1	1	2	25
	Syphilis—									
	(*a*) Primary ..	28	321	—	349	14	316	51	367	716
	(*b*) Secondary ..	35	432	3	467	38	877	344	1,221	1,688
	(*c*) Inherited ..	2	137	5	139	29	78	36	114	253
	(*d*) Tertiary ..	—	1	—	1	6	6	3	9	10
	Tetanus	—	5	1	5	—	—	—	—	5
	Tuberculosis.. ..	5	86	28	91	5	59	12	71	162
	Vaccinia	—	—	—	—	—	—	—	—	5
	Whooping Cough ..	—	20	2	20	—	17	4	21	41
	Yaws	96	998	12	1,094	88	1,866	656	2,522	3,616
	P.U.O.	—	179	—	179	3	224	33	257	436
	Others	—	3	—	3		—		—	3
	(*b*) *Intoxications*—									
	Alcoholism	—	2	—	2	—	—	—	—	2
	Morphinism	—	—	—	—	—	—	—	—	—
	Others	—	1	—	1	—	—	—	—	1
	(*c*) *General Diseases*—									
	Anæmia	4	66	5	70	9	334	194	528	598
	Anæmia-Pernicious	1	1	1	2	—	4	2	6	8
	Diabetes	1	2	1	3	1	4	—	4	7
	Exophthalmic Goitre	—	1	—	1	—	2	—	2	3
	Gout		2	—	2	1	22	—	22	24
	Leucocythæmia ..	—	—	—	—	—	—	—	—	—
	Hodgkin's Disease ..	—	1	—	1	—	—	—	—	1
	Myxœdema	—	—	—	—	—	—	—	—	—
	Purpura	—	1	—	1	1	1	—	1	2
	Rickets	—	—	—	—	—	1	4	5	5
	Scurvy	—	11	2	11	1	6	—	6	17
	Goitre, parenchymatous	—	1	—	1	—	4	3	7	8
	Starvation	1	1	1	2	—	—	—	—	2
	Debility	—	45	5	45	1	89	9	98	143
	Hæmophilia	—	1	1	1	—	—	—	—	1
	Other General Diseases	2	36	3	38	3	190	43	233	271
	(*d*) *Local Diseases*—									
	(1) Nervous System—									
Sub-Section I	Neuritis	2	35	—	37	1	264	82	346	383
	Meningitis	—	4	3	4	—	4	—	4	8
	Myelitis	—	—	—	—	—	1	—	1	1
	Hydrocephalus ..	—	—	—	—	—	—	—	—	—
	Encephalitis ..	—	—	—	—	—	—	—	—	—
	Abscess of Brain ..	—	1	1	1	—	—	—	—	1
	Congestion of Brain	—	—	—	—	—	5	—	5	5
	Tubercular Meningitis	—	1	1	1	—	—	—	—	1
	Locomotor Ataxia	—	—	—	—	—	1	—	1	1
	Cerebral Thrombosis	—	1	1	1	—	—	—	—	1
	Other Diseases ..	—	7	1	7	—	34	6	40	47
	Apoplexy	—	5	1	5	—	—	—	—	5
	Paralysis	3	20	—	23	3	25	1	26	49
	Chorea	—	1	—	1	—	3	—	3	4
	Carried forward ..	279	7,860	213	8,139	292	21,218	4,518	25,736	38,875

TABLE XI.—*continued.*

RETURNS OF DISEASES AND DEATHS (IN-PATIENTS) AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1923—*continued.*

	Diseases.	In-Patients.					Out-Patients.			Total cases In and Out-Patients.
		Remaining in Hospital at the end of 1922.	Yearly Total.		Total cases treated.	Remaining in Hospital at the end of 1923.	Males.	Females.	Total.	
			Admissions.	Deaths.						
	Brought forward ..	279	7,860	213	8,139	292	21,218	4,518	25,736	33,875
	Local Diseases—continued.									
Sub-Section II	Epilepsy	2	34	3	36	5	33	15	48	84
	Neuralgia	2	59	—	61	1	1,299	168	1,467	1,528
	Hysteria	—	—	—	—	—	2	5	7	7
	Headache	—	7	—	7	—	161	26	187	194
	Neurasthenia ..	—	15	—	15	—	22	4	26	41
	Migraine	—	—	—	—	—	5	3	8	8
	Aphasia	—	1	—	1	—	1	—	1	2
	Insomnia	—	1	—	1	—	3	2	5	6
	Infantile Paralysis ..	—	—	—	—	—	1	—	1	1
	Torticollis	—	—	—	—	—	1	—	1	1
	Aural Vertigo ..	—	—	—	—	—	2	—	2	2
	Vertigo	—	—	—	—	—	1	—	1	1
	Other Diseases ..	1	15	1	16	2	99	10	109	125
Sub-Section III	Mental Diseases—									
	Idiocy		1	—	1	—	1	—	1	2
	Mania	—	8	—	8	1	4	4	8	16
	Melancholia	—	2	1	3	—	1	—	1	4
	Dementia	—	2	1	2	—	—	—	—	2
	Delusional Insanity	—	3	—	3	—	2	2	4	7
	G.P.I.	1	—		1		—	—	—	1
	Other Mental Diseases	—	8	—	8	—	4	1	5	13
	(2) Diseases of the Eye—									
	Conjunctivitis ..	6	340	—	346	9	3,273	962	4,235	4,581
	Keratitis	1	13	—	14	—	29	10	39	53
	Ulceration of Cornea	1	11	—	12	1	54	9	63	75
	Iritis	—	10	—	10	1	40	5	45	55
	Optic Neuritis ..	—	1	—	1	—	—	—	—	1
	Cataract	—	15	1	15	1	22	9	31	46
	Pterygium	—	—	—	—	—	1	1	2	2
	Entropion	—	2	—	2	1	—	—	—	2
	Glaucoma	—	3	—	3	1	—	—	—	3
	Hordeolum	—	—	—	—	—	5	—	5	5
	Blepharitis	—	—	—	—	—	1	1	2	2
	Intra-ocular Hæmorrhage	—	1	—	1	—	1	—	1	2
	Ophthalmia Neonatorum	—	1	—	1	—	—	1	1	2
	Trachoma	—	6	—	6	—	37	7	44	50
	Panophthalmitis ..	1	2	—	3	—	—	—	—	3
	Other Eye Diseases ..	2	49	—	51	6	356	63	419	470
	(3) Diseases of the Ear—									
	Inflammation of Ext. Ear	—	9	—	9	—	790	248	1,038	1,047
	Inflammation of Middle Ear	—	18	1	18	1	391	118	509	527
	Inflammation of Mastoid	—	1	—	1	—	—	—	—	1
	Furunculosis	—	2	—	2	—	5	—	5	7
	Other Ear Diseases	—	—	—	—	—	541	94	635	635
	(4) Diseases of the Nose—									
	Rhinitis, Catarrhal ..	—	4	—	4	—	39	3	42	46
	Carried forward ..	204	8,504	221	8,801	322	28,445	6,289	34,734	43,535

TABLE XI.—*continued.*

RETURNS OF DISEASES AND DEATHS (IN-PATIENTS) AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1923—*continued.*

Diseases.	In-Patients.					Out-Patients.			Total cases In and Out-Patients.
	Remaining in Hospital at the end of 1922.	Yearly Total.		Total cases treated.	Remaining in Hospital at the end of 1923.	Males.	Females.	Total.	
		Admissions.	Deaths.						
Brought forward ..	297	8,504	221	8,801	322	28,445	6,289	34,734	43,535
Local Diseases—continued.									
Rhinitis, Suppurative	—	—	—	—	—	1	—	1	1
N. Polypus	—	—	—	—	—	1	1	2	2
Foreign Body, Nose..	—	—	—	—	—	1	—	1	1
Other Diseases of the Nose	—	8	—	8	1	56	5	61	69
(5) Circulatory System—									
Pericarditis, Serofibrinous	—	—	—	—	—	1	2	3	3
Pericarditis, Suppurative ..	—	1	1	1	—	—	—	—	1
Endocarditis ..	—	1	1	1	—	4	—	4	5
Valvular, Mitral ..	—	19	9	19	—	8	5	13	32
,, Aortic ..	1	1	1	2	—	2	—	2	4
,, Tricuspid..	1	—	—	1	—	—	—	—	1
Myocarditis	—	2	2	2	—	2	1	3	5
Angina Pectoris ..	—	—	—	—	—	—	1	1	1
Tachycardia ..	—	1	—	1	—	—	—	—	1
Syncope	—	2	—	2	—	—	—	—	2
Disordered action of Heart	—	2	—	2	—	8	2	10	12
Aneurism	—	3	—	3	—	—	—	—	3
Phlebitis	—	1	—	1	—	1	—	1	2
Thrombosis of Veins	—	3	—	3	—	—	—	—	3
Varicose Veins ..	—	—	—	—	—	2	—	2	2
Other Diseases ..	—	13	2	13	1	65	20	85	98
(6) Respiratory System—									
Œdema Glotidis ..	—	1	1	1	—	—	—	—	1
Laryngitis	1	14	—	15	2	127	27	154	169
Bronchitis	13	518	4	531	4	10,828	2,287	13,115	13,646
Asthma	1	30	2	31	1	158	59	217	248
Hæmoptysis ..	—	—	—	—	—	1	—	1	1
Tuberculosis of Lungs	1	48	20	49	1	40	8	48	97
Pleurisy	2	71	3	73	2	73	4	77	150
Empyema	—	3	1	3	—	—	—	—	3
Emphysema ..	—	—	—	—	—	—	—	—	—
Gangrene of Lungs ..	—	—	—	—	—	—	—	—	—
Abscess of Lungs ..	—	—	—	—	—	—	—	—	—
Broncho-Pneumonia	1	40	15	41	1	43	7	50	91
Other Respiratory Diseases	1	57	—	58	2	619	103	722	780
(7) Digestive System—									
Caries of Teeth ..	—	19	—	19	—	2,654	1,111	3,765	3,784
Pyorrhœa Alveolaris	—	—	—	—	—	26	5	31	31
Gingivitis	—	1	—	1	—	4	—	4	5
Gum Boil	—	—	—	—	—	1	—	1	1
Stomatitis	1	14	—	15	—	391	141	532	547
Caries of Jaw ..	—	1	—	1	—	—	—	—	1
Glossitis	—	—	—	—	—	1	—	1	1
Inflammation of the Fauces	—	17	—	17	—	573	116	689	706
Inflammation of Tonsils	1	268	—	269	2	534	102	636	905
Carried forward ..	321	9,663	283	9,984	339	44,670	10,296	54,966	64,950

TABLE XI.—*continued.*

RETURNS OF DISEASES AND DEATHS (IN-PATIENTS) AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1923—*continued.*

Diseases.	In-Patients.					Out-Patients.			Total cases In and Out-Patients.
	Remaining in Hospital at the end of 1922.	Yearly Total.		Total cases treated.	Remaining in Hospital at the end of 1923.	Males.	Females.	Total.	
		Admissions.	Deaths.						
Brought forward ..	321	9,663	283	9,984	339	44,670	10,296	54,966	64,950
Local Diseases—continued.									
Peritonsilar Abscess	—	1	—	1	—	—	—	—	1
Vincent's Angina ..	—	2	—	2	—	—	—	—	2
Inflammation of Parotid Gland ..	—	1	—	1	1	—	—	—	1
Foreign Body in Pharynx	—	—	—	—	—	1	—	1	1
Pharyngitis	—	—	—	—	—	12	5	17	17
Gastritis	1	41	1	42	1	157	37	194	236
Hæmatemesis ..	—	3	—	3	—	4	1	5	8
Ulceration of Stomach	—	2	—	2	—	4	—	4	6
Dilatation of Stomach	—	—	—	—	—	6	—	6	6
Stricture of Stomach	—	1	—	1	1	7	2	9	10
Dyspepsia	—	22	—	22	2	606	197	803	825
Vomiting	—	—	—	—	—	1	1	2	2
Enteritis	—	11	1	11	—	41	13	54	65
Appendicitis ..	—	13	1	13	—	7	1	8	21
Tuberculosis of Intestines		1	1	1		—			1
Colitis	—	21	—	21	1	59	12	71	92
Ulceration of Intestines		2		2		3		3	5
Sprue								—	
Hernia	9	132	6	141	16	63	2	65	206
Diarrhœa	7	534	27	541	15	2,463	460	2,923	3,464
Constipation	—	205	2	205	1	5,452	933	6,385	6,590
Colic	—	130	1	130	2	1,559	299	1,858	1,988
Intestinal Obstruction	—	4	3	4	—	—	—	—	4
Hæmorrhoids ..	—	15	—	15	1	53	5	58	73
Fistula in Ano ..	—	3	—	3	—	2	—	2	5
Prolapse of Rectum	—	1	—	1	—	2	—	2	3
Pancreatitis	—	—	—	—	—	1	—	1	1
Hepatitis—									
(*a*) Acute	—	23	—	23	2	34	14	48	71
(*b*) Abscess ..	—	2	1	2	1	2	—	2	4
Cirrhosis of Liver ..	1	9	5	10	3	7	2	9	19
Jaundice	—	7	—	7	1	35	10	45	52
Cholecystitis	—	1	—	1	—	—	—	—	1
Gall Stone	—	3	—	3	—	1	—	1	4
Peritonitis	—	3	2	3	—	—	—	—	3
Ascites	—	14	4	14	2	10	3	13	27
Visceroptosis ..	—	—	—	—	—	—	1	1	1
Other Disease of Digestive System ..	2	21	—	23	—	217	26	243	266
(8) Lymphatic System—									
Inflammation of Lymphatic Gland ..	5	82	—	87	2	261	34	295	382
Suppuration of Lymphatic Gland ..	1	34	—	35	1	37	7	44	79
Lymphangitis ..	1	24	1	25	1	46	16	62	87
Tuberculosis of [Lymph. G.	1	2	—	3	1	5	2	7	10
Splenitis ..	—	6	1	6	—	63	16	79	85
Elephantiasis ..	—	—	—	—	—	—	—	—	—
Splenomegaly ..	—	6	—	6	—	—	—	—	6
Carried forward ..	349	11,045	340	11,394	394	55,891	12,395	68,286	79,680

TABLE XI.—*continued.*

RETURNS OF DISEASES AND DEATHS (IN-PATIENTS) AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1923—*continued.*

Diseases.	In-Patients.					Out-Patients.			Total cases In and Out-Patients.
	Remaining in Hospital at the end of 1922.	Yearly Total.		Total cases treated.	Remaining in Hospital at the end of 1923.	Males.	Females.	Total.	
		Admissions.	Deaths.						
Brought forward ..	349	11,045	340	11,394	394	55,891	12,395	68,286	79,680
Local Diseases— continued.									
Other Diseases ..	—	10	—	10	—	18	1	19	29
(9) Urinary System—									
Acute Nephritis ..	—	9	3	9	1	10	—	10	19
Chronic Nephritis ..	—	19	6	19	1	5	4	9	28
Renal Colic	—	1	—	1	—	2	—	2	3
Pyelitis	—	—	—	—	—	—	1	1	1
Calculus	—	1	—	1	—	2	1	3	4
Cystitis	2	12	3	14	3	43	1	44	58
Vesical Calculus ..	—	—	—	—	—	—	—	—	—
Suppression	—	3	—	3	—	1	—	1	4
Hæmaturia	1	2	—	3	—	32	—	32	35
Chyluria	—	—	—	—	—	1	—	1	1
Extravasation of Urine	—	5	2	5	2	1	—	1	6
Urethral Fistula ..	1	18	—	19	—	6	—	6	25
Periurethral Abscess	—	1	—	1	—	—	—	—	1
Phosphaturia ..	—	—	—	—	—	1	—	1	1
Others, Uninary System	—	3	—	3	—	14	—	14	17
(10) Generative System—									
Male Organs—									
Balanitis	—	7	—	7	—	—	—	—	7
Paraphymosis ..	—	5	—	5	—	2	—	2	7
Urethritis	—	2	—	2	—	39	—	39	41
Gleet	—	6	—	6	—	30	—	30	36
Stricture	3	40	1	43	5	48	—	48	91
Prostatitis	—	6	—	6	—	1	—	1	7
Soft Chancre ..	9	55	—	64	2	85	—	85	149
Condyloma	1	10	—	11	—	16	—	16	27
Inflammation of Scrotum	—	1	—	1	1	12	—	12	13
Hydrocele	8	128	—	136	11	57	—	57	193
Orchitis	3	85	1	88	6	238	—	238	326
Epididymitis ..	—	14	—	14	—	23	—	23	37
Gangrene of Testicle	—	2	1	2	—	—	—	—	2
Mastitis, Male ..	—	1	—	1	—	2	—	2	3
Varicocele	—	—	—	—	—	2	—	2	2
Cyst of Testicle ..	1	—	—	1	—	—	—	—	1
Hæmatocele ..	3	5	—	8	—	—	—	—	8
Stone in Urethra ..	—	1	—	1	—	—	—	—	1
Other Diseases ..	—	24	—	24	—	23	—	23	47
Female Organs—									
Ovaritis	—	—	—	—	—	—	2	2	2
Ovarian Cyst ..	—	1	—	1	—	—	2	2	3
Malignant Tum. of Ovary	—	1	1	1	—	—	—	—	1
Uterine Polypus ..	—	1	—	1	—	—	1	1	2
Endometritis ..	—	4	—	4	—	—	5	5	9
Displacement of Uterus	—	11	—	11	2	—	3	3	14
Vaginitis	—	3	—	3	—	—	13	13	16
Amenorrhœa ..	—	—	—	—	—	—	19	19	19
Dysmenorrhœa ..	—	4	—	4	—	—	47	47	51
Carried forward ..	381	11,546	358	11,927	428	56,605	12,495	69,100	81,027

TABLE XI.—*continued.*

RETURNS OF DISEASES AND DEATHS (IN-PATIENTS) AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1923—*continued.*

Diseases.	In-Patients.					Out-Patients.			Total cases In and Out-Patients.
	Remaining in Hospital at the end of 1922.	Yearly Total.		Total cases treated.	Remaining in Hospital at the end of 1923.	Males.	Females.	Total.	
		Admissions.	Deaths.						
Brought forward ..	381	11,546	358	11,927	428	56,605	12,495	69,100	81,027
Local Diseases—continued.									
Menorrhagia ..	—	7	—	7	—	—	11	11	18
Leucorrhœa	1	—	—	1	—	—	12	12	13
Abortion	—	24	—	24	—	—	12	12	36
Delayed Labour ..	—	22	5	22	—	—	2	2	24
Obstructed Labour	—	3	2	3	—	—	—	—	3
Postpartum Hæmorrhage ..	—	2	—	2	—	—	1	1	3
Retained Placenta ..	—	1	—	1	—	—	—	—	1
Premature Birth ..	—	—	—	—	—	—	1	1	1
Hydrammios ..	—	1	—	1	1	—	—	—	1
Puerperal Septicæmia	—	6	1	6	—	—	3	3	9
Pelvic Abscess ..	—	1	—	1	—	—	—	—	1
Mastitis	—	4	—	4	1	—	30	30	34
Abscess of Breast ..	—	1	—	1	—	—	26	26	27
Ulcerative Granuloma of Pudenda ..	1	—	—	1	—	—	—	—	1
Other Diseases—	—	13	1	13	—	—	59	59	72
(11) Organs of Locomotion—									
Osteitis	3	20	4	23	2	49	9	58	81
Arthritis	4	105	1	109	2	545	117	662	771
Bursitis	—	8	—	8	—	14	1	15	23
Myositis	—	31	—	31	—	384	105	489	520
Osteo myelitis ..	—	5	—	5	2	—	—	—	5
Periostitis	—	2	—	2	—	2	—	2	4
Synovitis	1	52	—	53	1	96	17	113	166
Myalgia	—	113	—	113	—	1,699	239	1,938	2,051
Ankylosis	—	2	—	2	—	1	—	1	3
Caries of Bone ..	—	11	—	11	—	6	—	6	17
Ganglion	—	2	—	2	—	3	—	3	5
Rheumatoid Arthritis	—	1	—	1	—	—	—	—	1
Tenosynovitis ..	—	—	—	—	—	—	1	1	1
Other Diseases ..	2	77	—	79	1	591	88	679	758
(12) Connective Tissue—									
Cellulitis	8	210	3	218	5	1,166	123	1,289	1,507
Abscess	7	310	2	317	10	995	145	1,140	1,457
Other Diseases ..	37	312	6	349	49	1,073	87	1,160	1,509
(13) Diseases of Skin—									
Urticaria	—	5	—	5	—	31	7	38	43
Eczema	2	34	—	36	1	385	105	490	526
Boil	1	95	—	96	2	933	100	1,033	1,129
Carbuncle	1	14	1	15	—	13	2	15	30
Herpes	1	12	—	13	1	42	11	53	66
Psoriasis	—	1	—	1	1	40	4	44	45
Oriental Sore ..	—	—	—	—	—	—	—	—	—
Tinea	—	8	—	8	—	97	30	127	135
Scabies	7	125	—	132	4	4,267	876	5,143	5,275
Acne	—	1	—	1	—	10	2	12	13
Prickly Heat ..	—	4	—	4	—	15	5	20	24
Ulcers	124	807	14	931	90	9,728	1,861	11,589	12,520
Keloids	—	—	—	—	—	1	—	1	1
Carried forward ..	581	13,998	398	14,579	601	78,791	16,587	95,383	99,957

Table XI.—*continued.*

Returns of Diseases and Deaths (In-Patients) and of Diseases (Out-Patients) for the Year 1923—*continued.*

Diseases.	In-Patients.					Out-Patients.			Total cases In and Out-Patients.
	Remaining in Hospital at the end of 1922.	Yearly Total.		Total cases treated.	Remaining in Hospital at the end of 1923.	Males.	Females.	Total.	
		Admissions.	Deaths.						
Brought forward ..	581	13,998	398	14,579	601	78,791	16,587	95,383	99,957
Local Diseases—continued.									
Seborrhea	—	—	—	—	—	4	1	5	5
Impetigo	—	—	—	—	—	6	1	7	7
Blastomycosis ..	—	2	—	2	—	—	—	—	2
Other Diseases ..	4	40	1	44	1	216	33	249	293
(*e*) *Injuries* (*General*)—	5	52	5	57	3	2,688	163	2,851	2,908
Local	37	1,087	59	1,124	58	11,479	1,187	12,666	13,790
Tumour (unclassified)	6	61	8	67	6	47	32	79	146
Dermoid Cyst ..	—	1	—	1	—	—	—	—	1
Cystic Hygroma ..	—	—	—	—	—	1	—	1	1
Sebaceous Cyst ..	—	—	—	—	—	3	—	3	3
Cyst	1	7	—	8	—	7	7	14	22
Lipoma	—	6	—	6	1	5	1	6	12
Papilloma	—	2	—	2	1	1	—	1	3
Gumma	—	1	—	1	1	1	—	1	2
Multiple Osteomata ..	—	1	—	1	—	—	—	—	1
Fibromata (Ex.) ..	—	6	—	6	—	1	—	1	7
Innocent Growth ..	—	1	—	1	—	—	—	—	1
Abdominal Tumour	—	1	—	1	—	—	—	—	1
Epulis	—	2	—	2	—	—	—	—	2
Carcinoma Stomach	—	2	1	2	—	—	—	—	2
Carcinoma Abdominal	—	1	1	1	—	—	—	—	1
Carcinoma of Liver ..	—	2	—	2	—	—	—	—	2
Epithelioma Arm ..	—	1	—	1	—	—	—	—	1
,, of Penis	—	1	—	1	—	—	—	—	1
(*g*) *Malformations*—									
Phimosis	—	16	—	16	1	15	—	15	31
Supernumerary Toe	—	1	—	1	—	—	—	—	1
Congen Defect Urethra	—	1	1	1	—	—	—	—	1
Atresia Vaginœ ..	—	1	—	1	—	—	—	—	1
Cleft Plate	—	—	—	—	—	1	—	1	1
(*h*) *Poisons*—									
Belladonna	—	1	—	1	—	1	—	1	2
Arsenic	—	1	—	1	—	—	—	—	1
Food Poisoning ..	—	2	—	2	—	2	—	2	4
Serum Sickness ..	—	1	—	1	—	—	—	—	1
Bee Sting	—	—	—	—	—	2	—	2	2
Insect Bite	—	—	—	—	—	3	—	3	3
Snake Bite	1	25	—	26	1	9	1	10	36
Centipede Bite ..	—	1	—	1	—	1	—	1	2
Scorpion Sting ..	—	4	—	4	—	18	3	21	25
Unspecified	—	4	—	4	—	13	—	13	17
(*i*) *Parasites—Animal*—									
Unclassified	—	3	—	3	—	1	1	2	5
(1) Protozoa ..	—	—	—	—	—	—	—	—	—
(2) Trematoda (Flukes)	—	—	—	—	—	—	—	—	—
(*a*) Schist. hæmatobium	1	25	—	26	2	30	1	31	57
(*b*) Schist. mansoni ..	—	1	—	1	—	1	—	1	2
(*c*) Unclassified ..	—	—	—	—	—	104	8	112	112
(3) Cestoda—									
Tænia Solium ..	—	40	1	40	—	160	19	179	219
,, Saginata ..	—	12	—	12	1	252	59	311	323
,, Unclassified ..	—	—	—	—	—	357	114	471	471
(4) Nematoda—	—	1	—	1	—	—	—	—	1
Ascaris	—	13	1	13	—	1,001	811	1,812	1,825
Carried forward —	636	15,428	476	1,6064	677	95,221	19,029	114,250	130,314

TABLE XI.—*continued.*

RETURNS OF DISEASES AND DEATHS (IN-PATIENTS) AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1923—*continued.*

Diseases.	In-Patients.					Out-Patients.			Total cases In and Out-Patients.
	Remaining in Hospital at the end of 1922.	Yearly Total.		Total cases treated.	Remaining in Hospital at the end of 1923.	Males.	Females.	Total.	
		Admissions.	Deaths.						
Brought forward ..	636	15,428	476	16,064	677	95,221	19,029	114,250	130,314
Local Diseases—continued.									
Trichocephalus Dispar	—	—	—	—	—	3	—	3	3
Dracunculus ..	—	—	—	—	—	—	—	—	—
Filaria—									
(*a*) m.f. Bancrofti	—	37	1	37	1	—	—	—	37
(i) Elephantiasis of Leg	—	11	—	11	2	3	1	4	15
(ii) Elephantiasis of Scrotum ..	20	101	3	121	13	4	—	4	125
(iii) Elephantiasis of Clitoris ..	—	1	—	1	—	—	—	—	1
(iv) Elephantiasis Unclassified ..	—	5	—	5	—	91	29	120	125
(*b*) f. loa	—	—	—	—	—	—	—	—	—
Strongylus	—	—	—	—	—	—	—	—	—
Ankylostomiasis ..	13	257	68	270	26	1,517	623	2,140	2,410
Oxyuris	—	1	—	1	—	12	3	15	16
(5) Insecta—									
Myiasis	—	—	—	—	—	14	5	19	19
Chiggers (D. penetrans)	—	14	—	14	—	394	46	440	454
Under Observation	—	9	—	9	—	4	3	7	16
TOTAL	669	15,864	548	16,533	719	97,263	19,739	117,002	133,535

TABLE XII.

SURGICAL OPERATIONS, 1923.

Nature of Operation.	Result.						Remarks.
	Total.	Successful.	Improved.	Unsuccessful.	Died.	Remaining.	
Tumours and Cysts, excision of	46	42	1	—	2	1	Deaths: (i) malignant tumour of ovary; (ii) uterine fibroids. Including 4 epulis, 2 dermoids.
Abscess, incision	88	83	3	—	2	—	Including 1 mastoid, 5 perinæal (1 died septicæmia), 1 abdominal (? appendix, Ascaris lumbricoides removed).
Removal Foreign bodies	7	7	—	—	—	—	Two from foot, 1 from leg, 1 from hand, 1 from finger, 1 from cornea.
Ligature of Artery	1	1	—	—	—	—	Anterior tibial, *see* below, "Suture of Tendons."
Traumatic Aneurysm of Radial Artery, excision of	1	1	—	—	—	—	Died 3 weeks later of arrow poison.
Varicose Veins, excision of	3	3	—	—	—	—	
Enlarged Lymphatic Glands, excision of	5	4	—	—	—	1	
Tubercular Glands in neck	2	2	—	—	—	—	
Plastic Operations	5	3	1	—	1	—	One for congenital defect of urethra, died under anæsthetic (*see* special report, p. 177); one for facial wound (*see* special report, p. 181); three for entropion and ectropion.
Skin grafting	18	17	1	—	—	—	
Sinuses and Chronic Ulcers, curetting	39	33	3	—	1	2	Death under chloroform.
Wounds: Exploration or excision of, and suture	24	22	—	—	2	—	One spear wound lung (died); 5 gunshot; 1 maul by leopard; 1 of abdomen with evisceration (died same day); 1 cut throat; one of thorax by spear, pleural cavity closed; 1 spear wound shoulder.
Sequestrectomy and Curetting Necrosed Bones	29	28	—	—	1	—	
Fractures and Dislocations, reduction and setting of	21	17	2	—	2	—	Deaths: (i) Compound fracture both femora; (ii) dislocation clavicle and wounds. Including 3 dislocations hip, 3 shoulder joint, 1 compound dislocation wrist, 1 ditto elbow, 1 ditto ankle, 2 fractured femora.
Excision of Astragalus	1	—	—	—	1	—	For compound fracture dislocation: died gas gangrene.
Arthrotomy and drainage	2	1	1	—	—	—	For (i) suppurative arthritis of shoulder, (ii) purulent arthritis.
Severed Tendons, suture of	2	2	—	—	—	—	One with ligature anterior tibial artery also.
Tendon Stretching	1	1	—	—	—	—	
Carried forward	295	267	12	—	12	4	

TABLE XII.—*continued.*

SURGICAL OPERATIONS, 1923—*continued.*

Nature of Operation.	Total.	Result. Successful.	Improved.	Unsuccessful.	Died.	Remaining.	Remarks.
Brought forward	295	267	12	—	12	4	
Amputations :—							
Fingers and toes	23	23	—	—	—	—	One of these operations for removal of two accessory digits.
Through tarsus	1	1	—	—	—	—	For mycetoma.
,, leg	6	4	—	—	2	—	One circular, for fungating ulcer : secondary flap amputation later (recovered). One case gangrene, due ulcers. Deaths (i) in case of compound fracture with much laceration by crocodile bite ; (ii) no details.
,, knee joint	1	1	—	—	—	—	For gangrene.
,, femur	2	1	—	—	1	—	One for gangrene ; one (died) for severe gunshot wound leg.
,, forearm	6	4	—	—	1	1	Death from tetanus, following shell explosion.
,, humerus	4	2	—	—	1	1	One for recurrent sarcoma of forearm ; 1 for dry gangrene. No details of fatal case.
Trephining	1	1	—	—	—	—	For compression.
Cataract, extraction	11	11	—	—	—	—	
,, scarification	1	—	1	—	—	—	
Enucleation of Eyeball	2	2	—	—	—	—	For (i) traumatic rupture of globe, (ii) panophthalmitis.
Paracentesis of Pericardium, for effusion..	1	1	—	—	—	—	
Paracentesis Thoracis	1	1	—	—	—	—	
For Empyœma, pleural cavity	2	2	—	—	—	—	One following spear wound.
Hernia, radical cure	99	94	—	1	3	1	Eight were strangulated (2 died).
Exploratory Laparotomy	6	2	—	3	1	—	Death : Intestinal obstruction. Three unsuccessful : (i) Inoperable malignant growth stomach ; (ii) atresia vaginœ, uterus absent ; (iii) inoperable myomatous uterus.
Colotomy : L. iliac	1	—	—	—	1	—	For stricture descending colon, ? post-dysenteric.
For Intestinal Obstruction	1	—	—	—	1	—	Drainage of Intestine : died after second operation for closure.
For Hæmorrhoids	5	5	—	—	—	—	Three by Monsarrat's method ; 1 ligature and incision ; 1 ligature only.
For Fistula in Ano	4	4	—	—	—	—	
For Hepatic Abscess ; laparotomy and drainage	1	1	—	—	—	—	A second operation was necessary : recovered (*see* report p. 182).
Carried forward	474	427	13	4	23	7	

TABLE XII.—*continued.*

SURGICAL OPERATIONS, 1923—*continued.*

Nature of Operation.	Result.						Remarks.
	Total.	Successful.	Improved.	Unsuccessful.	Died.	Remaining.	
Brought forward	474	427	13	4	23	7	
Paracentesis of Urinary Bladder	2	2	—	—	—	—	One (septic), drained.
Urethral Stricture, dilatation of, with sounds	39	1	37	1	—	—	One with fistulœ.
Urethral Fistulœ, curettage of	2	—	1	1	—	—	
External Urethrotomy	3	—	3	—	—	—	
For Extravasation of Urine	6	4	—	—	2	—	One died septic cystitis on day following operation; 1 died pneumonia 14 days after operation.
Circumcision	61	61	—	—	—	—	
For Elephantiasis of Scrotum: Removal of tumour	78	73	—	—	2	3	Deaths from (i) tetanus, (ii) shock.
Hæmatocele, radical cure of	11	11	—	—	—	—	
Hydrocele, radical cure of	98	98	—	—	—	—	
Removal of Testicle	3	2	—	—	1	—	For gangrene.
For Pelvic Abscess	1	1	—	—	—	—	Incision through posterior fornix of vagina.
Hysteropexy	1	1	—	—	—	—	
Curetting of Uterus	6	6	—	—	—	—	Three for incomplete abortion, 1 for sterility, 1 for endocervicitis.
Perineorrhaphy	7	6	1	—	—	—	
For Elephantiasis of Labium, excision of tissue	2	2	—	—	—	—	
For Elephantiasis of Clitoris	1	1	—	—	—	—	
Version	1	—	—	—	1	—	Death from embolism.
Application of forceps to fœtal head	7	6	—	—	1	—	For delayed labour.
Induction of Abortion	1	1	—	—	—	—	For antepartum hæmorrhage (due to marginal placenta prœvia) hydramnios: twins, born dead.
Induction of Premature Labour	2	2	—	—	—	—	For hyperemesis.
Craniotomy	5	3	—	—	2	—	
Cæsarian Section	1	1	—	—	—	—	Recovery retarded by attack of tetanus
Porro's Operation	1	—	—	—	1	—	For osteomalacia, died of shock.
Removal Retained Placenta	2	2	—	—	—	—	
Minor Operations, various	35	28	1	3	2	1	Died (i) of septic meningitis, 11 days after arrest hæmorrhage from superior longitudinal sinus due to wound; (ii) of C.S.M. after lumbar puncture for diagnosis. Unsuccessful: 2 retroverted uterus, 1 compound ganglion ? tubercular.
TOTAL	850	739	56	9	35	11	

APPENDIX I.

ANNUAL REPORT OF THE SUPERINTENDENT, LUTINDI LUNATIC ASYLUM.

STATISTICS.

	Males.	Females.	Total.
In residence on the 1st January, 1923 ..	55	30	85
Admitted during the year 1923	18	6	24
Discharged ,, ,, ...	19	4	23
Died ,, ,, ...	4	1	5
Remaining on 31st December, 1923	50	31	81
Number under treatment during 1923.. ..	73	36	109
Average daily number resident..	57	31	88

	Males.		Females.		Total.	
	Yrs.	Mths.	Yrs.	Mths.	Yrs.	Mths.
Average length of stay of those discharged	1	6	1	8	1	7
,, ,, ,, who died	–	10	2	4	1	1
,, ,, ,, remaining	4	8	8	1	6	–

ADMISSIONS.

The 24 patients admitted were classified as follows :—

10 suffered from Mania in various forms.
5 ,, ,, Delusional insanity.
4 ,, ,, Imbecility and confusion.
2 ,, ,, Depression.
1 ,, ,, Insanity associated with Epilepsy.
1 ,, ,, Hemiplegia with mental enfeeblement.
1 ,, ,, Old age with mental enfeeblement.

One case of recurrent mania was re-admitted after an absence of five months.

DISCHARGES.

The total number discharged during the year was 23, which is 11 more than last year.

One male and one female were discharged improved, the remainder were regarded as recoveries. The majority of those discharged were suffering from mania when admitted. Cases of Delusional and Depressive Insanity tend to become chronic, this is particularly noticeable among the female inmates, many of whom have been here a number of years and are not improved.

DEATHS.

There were five deaths during the year—seven less than last year. The principal cause of death, so far as could be ascertained, was as follows :—

1 Female.	Exhaustion following prolonged excitement and restlessness.
1 Male.	Shock following attempted suicide by hanging.
1 ,,	Extreme old age.
1 ,,	Cerebral hæmorrhage (admitted suffering from hemiplegia).
1 ,,	Epilepsy.

HEALTH.

The general health has been very good. There has been no Dysentery throughout the year.

Three patients were attacked with Diarrhœa.
Sixteen males were attacked with Influenza.
One patient underwent operation for hydrocele, in Tanga Hospital.
Seven patients suffered minor injuries at the hands of fellow-patients.
Four males sustained severe injuries during Epileptic seizures.
Eight patients were mechanically restrained upon fourteen occasions.
Seclusion was resorted to upon nineteen occasions.
There were no escapes.

COST OF MAINTENANCE.

Amount allocated by Departmental Warrant No. 21/1923/24 = Shs. 15,000.00

Amount expended for nine months ending 31st December = ,, 7,824.33

Based upon the average number resident, the cost of maintenance has been approximately 32 cents. per head, per day, during the calendar year.

Average monthly expenditure on each patient maintained during 1923 :—

	Shillings.
In food	4·54
In wages of employees	4·36
In Clothing	·59
In sundry replacements, tobacco, &c. ..	·14
In lighting and cleaning materials	·13
Approximate monthly cost per head ..Shs.	9·76

WORK OF PATIENTS.

More ground was taken under cultivation this year and an average of 25 male inmates found employment daily.

The farm produce was valued at Shs. 578/10 and is taken on charge for Rations. A return of Farm Produce is attached.

Other males were employed tailoring, painting, basket-making, assisting tradesmen, and in scavenging.

Most of the female inmates were occupied in preparing food and in plaiting native mats.

Twenty-five articles of furniture were made for Tanga and Moshi Hospitals, for which no charge was made.

IMPROVEMENTS AND REPAIRS.

The earthen floors in male and female wards and in dining hall have been replaced by concrete.

The walls of two rooms have been re-inforced with cement.

A concrete incinerator has been built, as suggested by the Principal Medical Officer during his visit.

Surface drains and gutters have been completed.

The buildings have been renovated and all woodwork treated with Solignum.

Several minor improvements in regard to fences, doors and gates have been carried out.

Four dustbins have been improvised, and all clothing, blankets and baskets stencilled with the name of the asylum.

SANITATION.

The improvements which have been made in the drainage of rooms and in the disposal of refuse have helped the Asylum to enjoy a remarkably healthy year.

The supplies of cement have been of the greatest benefit. Concrete floors admit of rooms being washed out, which was not possible before, a copper has been built to boil the weekly wash, and the resulting scarcity of jiggers and other vermin has added to the general comfort.

The practise of chewing sugar-cane and ejecting the residue about the floor and grounds was most difficult to check, but patients and employees are beginning to appreciate the value of dustbins and incinerator. The patient in charge of the latter has become expert at his job. It is noticeable that the number of flies and smells have lessened considerably, particularly in the dining hall, where the floor has been recently treated with cement.

There are still two weak spots in the Sanitary arrangements which require a further supply of cement and a few lengths of drainpipe to complete the improvements.

VISITORS.

The Administrative Officer in Charge, Usambara District, inspected the Asylum on 5th September and left a record of his visit.

GENERAL MATTERS.

A daily service is held in the Mission Church at which any patient who desires is allowed to be present.

One juvenile patient attends the Mission School daily. The one patient able to read appears to derive enjoyment from the monthly copy of "Mambo Leo" with which he is supplied.

Four patients assisted to make an inlaid table for the British Empire Exhibition.

The means for amusing the patients are limited, A few men play football and several females interest themselves making mats and baskets.

Sports were held at Easter for prizes given by Matron. Some 200, including employees and their families, took part.

The attendants have been on the best possible terms with the patients; most of the female attendants are accompanied by a child while on duty and it frequently happens that an acute patient is employing herself as nurse.

The Matron has conducted the Dispensary for out-patients from neighbouring villages to the number of 793.

Ample supplies of medical stores have been received from headquarters during the year.

Return of crops grown in Asylum grounds during 1923:—

Produce.			Value. Shillings.
Sweet Potatoes	11,202 lbs.	at cents 2 per lb.	224·04
Tobacco	162 ,,	,, 50 ,, ...	81·00
Maize	2,312 ,,	,, 4 ,, ...	92·48
Beans	1,446 ,,	,, 10 ,, ...	144·60
Tomatoes	659 ,,	,, 4 ,, ...	26·36
Fruit and Sugar Cane	..	.. ..	9·62
		Total Value .. Shs.	578·10

APPENDIX II.

GOVERNMENT DENTAL SURGEON'S REPORT, 1923.

Below is a summary of the dental treatment given to the European Officials and their families during the period January-June, 1923; the remainder of the year the writer spent on leave.

The treatment of Caries and Pyorrhœa continues to occupy the greater part of the time of the writer, who performs also the appliance work.

Tabora and Dodoma were visited in April.

Officials of the Zanzibar Protectorate have been treated as in the past.

Members of the Asiatic staff and their families have been treated when required, as also have some of the native school children and the local natives.

Early in the year the Dental Surgery was enlarged, greatly to the advantage of all concerned.

Attention is drawn to the necessity of some form of dental X-ray apparatus. Much depends on the early diagnosis of hidden dental sepsis, and it is suggested that some of those patients who suffer from malaise, ill health and exhaustion on slight exertion, at present described as a result of residence in the Tropics, may owe their cause to sepsis of hidden dental origin. Cases of Subacute Toxæmia, of, in some cases, years standing, have been shewn to be due to hidden dental sepsis and have been cured on removal of the cause, *i.e.*, dental sepsis, the presence of which could only have been discovered by means of a radiogram.

The list below refers to the European Officials and their families of this Territory, treated during the period January-June, 1923:—

Attendances	564
Fillings, crowns, etc.	287
Root fillings	41
Extractions	75
Dentures repaired	28
Dentures made	20
Scaling, gum treatment, etc.	185

In addition to the Asiatics and Africans treated, twelve patients attended from Zanzibar, for whom the following work was done :—

Attendances	17
Fillings, crowns, etc.	15
Root fillings	3
Extractions	3
Scaling	5

H. M. Fisher,
Government Dental Surgeon.

APPENDIX III.

Annual Report by S. A. S. Kelkar, in Medical Charge, Anglo-Belgian Boundary Commission, 1923.

Introductory Remarks.

This period may be said to have been occupied by the Commission in working from the northern end of the boundary (Shonga) to the southern end (Lake Tanganyika) and may be divided into two parts, viz. :—(*a*) Actual stay in certain camps, and (*b*) Period spent in travelling from point to point. The Commission itself was divided into two sections, viz. :—(1) Section doing the actual field work—two Senior Surveyors and two Topographers, and (2) Section in Headquarters at the Base Camps.

The following Table shows the movements and approximate stay at each Base :—

Ruanda Area ..	Shonga	January, 1923.
	Nshiri	February 10th to June 20th.
Kibondo Area ..	Luchachi's	July and August.
	Kibondo	September—August.
Kasulu (Ujiji Area)	Nianga	November to December 17th.
	Kumunanira on Lake Tanganyika ..	December, 1923.

Section I. Administrative.

The Medical arrangements were in charge of a S.A.S. (the writer), assisted by one dresser. It was decided that the Medical Department should stay at Headquarters and should visit the Senior Surveyors and the Topographers as necessity arose and opportunity occurred. Each of the Surveyors and the Topographers, who were almost always on their own with a certain number of porters and followers, was supplied with first aid drugs, dressings and equipment, with instructions as to their use, and this supply was replenished from time to time. Serious cases were sent in by them to the Base Camp where, through the kindness of the British Commissioner, a small hospital "banda," 12 in. by 12 in., was always prepared for their reception and treatment.

At Headquarters usually were present the British Commissioner with his porters, the O.C. Escort with the Askari, the S.A.S. with the hospital, and a certain number of porters : from time to time each of them had to travel to visit the actual field force working.

It may also be remarked here that the Belgian Section of this Commission had no Medical Attendant, and, whenever requested and necessary, medical aid was promptly rendered in emergency and difficult cases, both to the Europeans and Natives.

The local natives of the parts traversed by this Commission also were treated.

The European Officials met within the districts traversed, needing medical help, were also treated.

Section II. Health and Statistics.

The following was the number of persons for whose health I was responsible :—

European Officials	7
Asiatic Official	1
Native Officials	240.3 on the average.

During 12 months there were 2,884 Native Officials. Native Officials consisted of K.A.R. Askari, permanent porters and followers of the Commission.

GENERAL REMARKS.

Total treated, including local natives	2,043
Deaths	4

INFECTIVE DISEASES.

Dengue Fever.—A solitary case occurred amongst the permanent porters near Shonga.

Dysentery.—No cases occurred amongst the Commission personnel. One case of Amœbic Dysentery amongst the followers of the Belgian section was treated at "Sinda," the Belgian Base Camp in Ruanda area.

2. Cases were treated at Nshiri Base Camp amongst the local natives.

Enteric Fever.—No cases. It is interesting to note here that the parts of Ruanda through which the Commission passed were, before and during the late war, a confirmed Enteric country.

Syphilis and Gonorrhœa.—See section on Venereal Diseases, p. 153.

Influenza.—No cases. At Kibondo all the K.A.R. Askari and some of the permanent porters were inoculated with protective vaccine.

Leprosy.—Two cases diagnosed amongst the permanent porters and repatriated to their respective districts

Malaria.—European Official, 1 case, sub-tertian; Native Officials, 64 cases, no deaths; clinically diagnosed 36, microscopically B tertian 9, sub-tertian 19; local natives, 14 cases; 1 case amongst the followers of the Belgian section

Local Conditions.—I had the opportunity of inspecting a certain number of children and adults (Bahutu and Batusi tribes) for splenic enlargement at Nshiri (Kanazi village), with the results charted below :—

Comparison in the Splenic Enlargement at different ages in the two tribes Batuis and Bahutu at Kanazi Village (Ruanda), shown as percentages among 363 individuals examined :—

Ages ..		1	2	3	4	5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40
Batusi ..	%	10	15	—	—	9	18	14	51	52	65	—	79
Bahutu ..	%	70	76	71	—	72	51	46	31	9	—	—	—

Meningitis, Cerebro-spinal.—No cases.

On enquiring into the past history of epidemic diseases of the Nchiri area, Mtwale Lukara said that, after the Influenza epidemic of 1918, his district was visited by an epidemic disease in 1919-1920, which reduced his 15,000 tax payers by 500 and showed an unusually heavy incidence amongst females and children. From the following description of the disease he gave me, it appears to have been C.S.M.

Description of the Disease.—The person attacked complained of severe pain in the lumbar region and was unable to move his lower limbs—the pain ascended from the lumbar to the cervical region, and the neck became fixed. The body became very hot, the patient delirious and then comatose; he could not even feel the touch of red hot iron. All these signs and symptoms manifested themselves in eight hours and, if the case was to be fatal, it proved so in twenty-four hours. They branded the nape of the neck and all over the spinal column with red hot iron and sometimes the patient did recover; but, if so, he always exhibited one of the following marks of the disease, viz. :—both legs or one leg paralysed; one or both arms paralysed; eyesight lost; speech lost; neck turned and fixed on the right or the left side.

To avoid this disease he said they used to inhale the vapour of Eucalyptus tree leaves: possibly the infection was carried by the respiratory passages.

The epidemic, he said, started in the Bugufi area, near the Ruvuvu River, and spread over towards his district owing to the careless disposal of the dead and the constant road traffic.

The epidemic having subsided in 1920, sporadic cases now occur every year during June and July, causing one or two deaths: at the time of giving me this information in June, 1923, he reported two deaths in different hills.

Sandfly Fever.—*See* Appendix, p. 158.

Pneumonia.—Two cases. No deaths.

Relapsing Fever (Tick Fever).—Ten cases. No deaths.

Out of the ten cases, four occurred amongst the Nyasaland askari, four amongst the coast boys, who seem to be very susceptible, and one amongst the local natives.

Complications: in one case, well-marked sub-conjunctival hæmorrhage and, in another, Herpes labialis.

The presence of O. moubata was noticed in several places on the route (*vide* Section IV., Entomology).

Small-pox.—No cases. All natives were certified as vaccinated before being employed.

Tetanus.—Nil. In spite of the injuries and scratches incurred in the bush and covered over with dirty soil, no cases occurred.

Pulmonary Tuberculosis.—One case, a permanent porter, was diagnosed at Nshiri and was recommended for repatriation and notification to the M.O.H. I/C of the district to which he belonged. Seven cases, Batusi by tribe, were treated in the Ruanda area. Pulmonary Tuberculosis is one of the very common complaints amongst the Batusi, who live mostly on fresh or curdled milk and banana beer and lead a sedentary life. Tuberculosis amongst their cattle is not uncommon.

Yaws.—Six cases: contracted in the Ruanda area, where it is rife in certain parts.

Sixty-two cases were treated amongst the local natives. In my December report last year I reported on twelve cases of "Sloughing Ulcerous Rhino-pharyngitis," which were under treatment and which condition was very common amongst the natives of the Shonga area. The Director of Laboratory suggested, after an examination of a series of slides of the nasal discharge from these cases, that this might be "Vincent's Infection" super-imposed on Yaws. If this be so, it may be said that there are two distinct types of Yaws seen in the Ruanda area, viz.:—(1) Sloughing Ulcerous Rhino-pharyngitis in the Shonga area, and (2) Condylomatous type in the Nshiri area.

I examined a certain number of children at Nshiri and the following Table shows the results:—

	Children Examined.		Number showing active lesion of Yaws.	
	Male.	Female.	Male.	Female.
Batusi	53	16	15	3
Bahutu	88	30	23	4

The natives call this condition "Manyoro ndogo" and believe that, when they once suffer from Yaws, they can never suffer from "Syphilis," which they call "Manyoro kubwa."

Treatment: Antimony tartrate ½ gr. to 5 c.c. of saline was found of value: six to eight such injections were required at intervals of six to eight days. In twenty-two cases, 914 was given intravenously to cure complications.

Helminthiasis.—Cases treated amongst Native Officials 14
,, ,, ,, local natives 27

Ankylostomiasis was found to be a common condition amongst the Bahutu, who have practically no idea of clean and sanitary living. Seventy-six specimens of stools (Native Officials) were examined and nearly 33 per cent. were found positive:—

Stools examined	Ova Asc:-Lumb:	Ova Ankylostoma.
76	3	22

Although the ova of Ankylostoma were noticed, the subjects, excepting one who developed Ankylostomiasis after three months, did not show signs of the disease during three to six months' observation.

Trypanosomtasis.—No cases.

One case was suspected, but the Director of Laboratory reported a negative result on the examination of a blood film. For the distribution of Tsetse Belts observed, *see* "Entomology."

Venereal Diseases.—Native Officials, Gonorrhœa 11, Syphilis 19; local natives, Gonorrhœa 11, Syphilis 35.

Syphilis.—The scourge of Syphilis is rampant throughout Ruanda. It is not only degenerating the general physique of the local natives, but a heavy infantile mortality is caused by it. The following results, obtained on an examination of a certain number of children at Nshiri, show the prevalence of hereditary Syphilis:

	Children Examined.		Showed signs of Hereditary Syphilis.	
	Male.	Female.	Male.	Female.
Batusi	53	16	16	8
Bahutu	88	30	29	9

Infantile Mortality.—At Nshiri, Mtwale Lukara, one of the intelligent chiefs of Lukira district, gave the following information regarding Kanasi village: there are 410 males and 469 females, with 780 children in this village. In 1922 62 children died under 4 years of age and, out of the 38 births, 11 were still-born, the chief cause being Syphilis.

The community has now realized the menace of this scourge and they readily attempt to get the proper treatment. The majority of them are anxious to get intravenous Salvarsan, which they call "Shindano Kubwa." I have had cases of pregnant women come in to ask for 914 injections in order to secure the birth of a live child.

SECTION II*b*. HEALTH, EUROPEAN OFFICIALS.

Generally the European Officials kept in good health in spite of the hardships encountered: this fact reflects great credit on themselves for their proper adoption of prophylactic measures and for continuously keeping what is called "Health conscience":—

Total number of Officials	7
Total number on Sick List	7
Total number of days on Sick List	32
Average daily number on Sick List	0·08
Per cent. of Sick to Total number	1·2
Average number of Sick days for each Patient	4·57
Average Sick Time to each Official	4·57
Total number invalided..	1
Percentage of Invalidings to Total Officials..	14·2
Deaths	Nil.

The diseases for which these Officers were on the Sick List, were:—

Malaria, subtertian	1	Gastritis, acute	1
Neuritis	1	Hæmorrhoids	1
Angina pectoris	1	Food poisoning	1
Inflammation lymphatic gland			1

And the following cases were treated as Out-Patients:—

Renal colic	1	Pyorrhœa	1
Coryza	1	Urticaria	1

One European Official contracted Tick Fever whilst on his way down to Kigoma from Kibondo and was recommended for leave by M.O. Kigoma who treated him.

Health of the King's African Rifles escort:—

King's African Rifles, strength	40
Total number treated as In-Patinets	26
Total number of days off duty	318
Average number of off duty days for each In-Patient	12·23
Average sick off Duty Time for each Askari	7·95
Total Out-Patients	467
Average daily number on Sick Parade (including In-Patients) ..	1·35
Death	Nil.

The following important diseases were treated :—

Tick Fever	4	Gonorrhœa	2
Malaria	4	Syphilis	2
Three-Day Fever	2	Ulcers	2
Acute Bronchitis	1	Rheumatism	1
Pleurisy	1	Cellulitis	2
Tape Worms	2	Diarrhœa	3

Health of the Permanent Porters and Followers :—

Average monthly strength, Porters and Followers	200·3
Total on Sick List	1,110
Total treated as In-Patients	358
Total Out-Patients	752
Average days off duty for each In-Patient	7·9
Average daily number on Sick List	7·7
Invalided or sent for further treatment	15
Deaths	4

(Injuries and Ulcers predominated).

For the description and the incidence of the Ulcers, *see* Appendix, page 157.

Whilst at Luchachi's, some of the porters and the followers suffered from Three-Day Fever in July and August; a full account of this condition is appended (page 158).

The four deaths recorded were due to :—

Heart failure (?Ankylostomiasis)	1
Reported by Topographers from outside :—	
Pneumonia	2
Struck by Lightning	1

Emergency Operations performed :—

Radical cure, for Strangulated Hernia	1
Radical cure, for Inguinal Hernia	1
Circumcision, for Phimosis	1

Minor Operations performed :—

Free Incisions, for Cellulitis	8
Opening and drainage, for Abscesses	23
Opening and scraping, for Bubo groin	3
Curetting, for Ulcers	49
Extraction, for Carious teeth	12

SECTION III. GENERAL PHYSIQUE AND SOME CUSTOMS AND HABITS OF THE NATIVES OF THE DISTRICTS TRAVERSED.

RUANDA.

The local natives divide themselves into distinct tribes, viz. :—(1) The Batusi, the landlord class; (2) Bahutu, the labour class; (3) The Batwa, the Bushman tribe, seen here and there.

(1) *The Batusi.*—Tall (average height over 6 ft.), delicate, slenderly built, pale-coloured natives with straight features and large eyes, resembling in most respects "Somalis"; very poor where weight lifting is concerned, generally occupy the highland plateaus and own large herds of cattle and plantations of bananas. Their habitations are clean and sanitary, they live mostly on raw milk, curdled milk and fermented raw banana beer which they suck through a hollow, light wooden tube, without which they would not drink anything. (Even medicines are drunk through this tube; I had to keep two such tubes). They besmear the body with butter from head to toe to avoid chills, colds, sunburn and jigger fleas; have the body massaged by Bahutu serfs every evening; are skilled in spear-throwing and in the use of bow and arrows to protect the gardens from wild pigs; not regular flesh eaters, but, occasionally, when an ox or a cow is very sick and nearly dying, they slaughter and eat it. Staple foodstuffs, which are generally eaten well-cooked with the whole family, are sweet potatoes, beans, banana flour or mtama flour. Clothe themselves with a piece of cloth knotted over the left shoulder; dress the hair (on the average, longer curls than the other tribes) in horse shoe patterns, carry a long stout spear in the right hand, wear a string of beads round the neck and, to complete the array, carry a long delicate wooden-tube clay pipe in the left hand, filled with half green tobacco leaves and a live charcoal on top. They are experts in high jump, running and fast walking, but lose their balance where sudden turning is required.

Their women resemble them in every respect, but are well clothed with long bark cloth or skins (softened with constant coatings of butter) and mostly spend their time inside their house compounds, which custom resembles the most disastrous " Parda System " in India.

Originally this tribe had a very high moral standard of living, but recently, marks of degeneration can be observed through their inter-marriage with the Bahutu and other tribes.

The most common diseases met with are Syphilis, Yaws, Pulmonary Tuberculosis, Ankylostomiasis : in women, Anæmia and Chlorosis, and in children, Hereditary Syphilis and Bronchial diseases. Their usual adjunct to any native medication is either cow dung or cows urine.

(2) *The Bahutu.*—The working class of natives—the original tribe of Ruanda—are medium statured and muscularly built ; occupy mostly the valleys or the low lands near their gardens of sweet potatoes, beans or mtama (millet) ; labour and look after the cattle of their Batusi masters, themselves owning some goats and sheep ; assisted by their women, who carry their youngest baby on the back in a goat skin, and children are most dirty and unclean in their habits, wear cattle skins or goat skins which have been besmeared with rancid butter hundreds of times and always carry a strong smell about them and, consequently, swarms of flies ; they usually use the bush nearabouts their habitations—which consist of small, circular dome-shaped grass huts—to answer calls of nature. The cattle, the cow dung and their habitations are generally in the same compound which swarms with flies. They seldom, if ever, bathe, and are, naturally, very exposed to insect bites. The staple foodstuffs are beans, sweet potatoes and mahogo or mtama flour. They are flesh eaters, but never eat fowls or eggs. The chief prevalent diseases are Ulcers of the extremities, Elephantiasis, Scabies, Ankylostomiasis, Yaws and Syphilis.

(3) *The Batwa.*—A Bushman tribe of Ruanda, not met with in large numbers, very lazy, do not hoe any shambas for their food, but live mostly on meat trapped or shot with arrows, or on stolen foodstuffs ; clothe their private parts with banana or other leaves or skins of trapped animals.

(4) *The Bugufi and Usuvi.*—Similar in all respects to the Bahutu tribes of Ruanda.

Cannabis Indica. (*Bhang*).—Is seen in almost every house compound of the Bugufi natives. The dry leaves are used for smoking and the watery extract is mixed with Pombe (beer) to accelerate the exhilerating sensation. The eyes of the Bugufi natives mostly show a slight degree of " Exophthalmos."

(5) *The Bahas.*—This principal tribe, met with in the Kibondo area and the Kasulo area (Kigoma district), is very poor in physique and the majority of them have deformities of the extremities, viz. :—Talipes, Genu varum, Genu valgum, toes fallen off owing to Jigger fleas or Ainhum, deformities of the spine. Leprosy is very commonly seen. They indulge in mtama or banana beer mixed with honey, and are said to have excessive desire for sexual intercourse ; have very little respect for life and, when drunk, either murder or seriously wound their neighbours or partners with spears or poisoned arrows or small spear heads worn in beautifully carved wooden scabbards, which they always carry about. They have a great liking for decking themselves with thick or thin brass or copper wire anklets, wristlets and necklaces from early childhood. They shave their heads (men, women and children) and besmear their heads with palm oil—a rancid, yellowish greasy substance, resembling " Paraffin Molle "—to avoid sunstroke and as a matter of decency.

The staple foodstuffs are raw bananas, beans, mahogo, mtama flour, sweet potatoes and, for fat, roasted white ants.

Infantile Mortality.—Apart from Syphilis and Yaws, there are two other causes which take a heavy toll of life amongst these tribes. Amongst the Batusi there occurs a disease resembling Infantile Biliary Cirrhosis, with enlargement of the liver and spleen, Anæmia, vomiting and Diarrhœa, and death within twelve days. Amongst other tribes, Penumonia, " Bronchial Catarrh," and enlarged spleen due to fevers. Amongst the Batusi, the expectant mother is not allowed to do any work and is kept on light diet : after delivery, she is kept on milk or banana beer for twelve days and, later, light diet for two months. Amongst the other tribes the expectant mother works in the field almost up till the time of delivery and, the day after delivery of the child, she carries that child on her back in a goat skin and consequently the child is exposed to chills, draughts and insect bites.

SECTION IV. ENTOMOLOGY.

Mosquitoes.—Anopheline mosquitoes. (1) This variety of mosquito was noticed to be breeding at Shinga in a small collection of stagnant water in a slowly running stream in the valley at the foot hill on which the camp was situated during the end week in December, 1922, and also the first week in January, 1923.

(2) Anopheline mosquito larvæ were present in the small swampy stream (water supply) at the foot of the Gabiro camp and were noticed on 29th January, 1923.

(3) Anopheline mosquitoes were also found at Nchiri Base camp during the third week in March, 1923: probable source—being blown over to the camp from the roots of the banana trees, about 600 yards from the camp, where they were found to be breeding.

(4) Anopheline mosquitoes were found at Kibondo during the third week in October, 1923. These were breeding in a small pond in the vegetable garden of the A.O. at the foot of the hill.

(5) Anopheline mosquitoes were also found to be breeding in the collection of water formed at the roots of banana trees at Nianga in the last week in November, 1923.

(6) Anopheline mosquitoes were also found at Kasange Camp, on the Kagera River, on the 22nd of June.

Stegomyia, as well as Culcines, were in numbers everywhere during the rainy season.

Tsetse Belts.—(1) Game forest near the Mount Gabiro: observed on 29th January, 1923.

(2) Mahoma, 4 miles east of Kiburara on 6th February, 1923, at 8 a.m.; altitude 4,200 feet. Thick game forest, wooded with medium-sized trees and long grass intervening: the following game abounds:—tope, zebra, waterbuck, reedbuck and buffalo, in long grassy valleys. The place was at one time thickly populated as evidenced from the many deserted habitations and compounds of milk-hedge present.

(3) Lenbona Hill, bank of the Kagera River, on 12th April, 1923, at 7.30 a.m. The belt only covers altitude 4,400 feet to 4,600 feet. Hills are covered with thick forest trees of medium height and long grass. Swamp of papyrus and thorny ambach at the foot of the hill.

(4) At Kiziwizigwe on the 1st of September, 2nd camp from Luchachis, towards Kibondo.

(5) At Mpemoi, on the 31st of October, 1st camp from Kibondo, towards Malagrassi River.

(6) At Bushoza river, 1st of November, 2nd camp from Kibondo towards Malagrassi.

(7) At Malagrassi river, Karadonga's; Kibondo side of the Malagrassi river.

(8) Between Nyange and Muhuroro in a game forest, 2nd camp from Malagrassi, towards Nyanga, Kasulu area, 7th November, 1923.

Ticks.—A species of spotted tick was caught in a native hut at Nchiri, adjoining a cattle kraal at 3 p.m., on 5th May, 1923.

Spirillum Ticks (O. moubata).—The presence of these ticks was noticed at Camp Gisha, Luchachis (probably brought in from Tabora-Mwanza-Biharamulo route), and also all along the route from Kibondo, towards Malagrassi, in native huts in camps.

Blood-sucking Larvæ.—These larvæ were noticed in as large numbers under the grass beds of the natives and found in the daytime buried in the loose earth underneath, but biting like ticks during the night. They are very quick in their movements. In fact, the search was really made for Spirillum ticks when the boys complained that they were bitten by some insects during the night. These larvæ are transparent and the sucked blood can be seen for three days quite fresh.

Their presence, however, side by side with the Spirillum ticks, leads to some suspicion as to whether these larvæ could carry spirillum of relapsing fever.

Blood-sucking Flies.—Three different species of these flies (Hæmatopota) were caught in the Nchiri area (Kanazi), near papyrus swampy place at the Lake Mugesera, from where water for drinking purposes is fetched, on 3rd June, 1923, at 10.30 a.m. Another species was collected in a cleared space in the bush adjoining the papyrus and thorny ambach swamp near lake Sake, at the foot of a hill, one hour from Nchiri, on 15th of May, 1923. This is a watering place for cattle as well as natives.

Two specimens of large blood-sucking flies were also found at Nyanzuki, 1st and 2nd camps from Kibondo, towards Luchachis. These flies make a sudden humming noise, dash on the exposed parts of the body, inflict a horrible sting, and fly away. The presence of tsetse also in these camps was noticed as remarked above.

Musca.—A species of fly, smoky-coloured, looking very innocent, sitting on the inner sides of the roofs of the tents in which the blood-sucking larvæ were found at Luchachis (Auchmeromyia luteola, no doubt, J.B.D.). A species of fly was also caught at Gwisha village that seemed to live on other flies (Asilids. J.B.D.).

Chigger Fleas.—These abound, especially in the Kibondo area, in loose, red sandy soil. They become especially numerous in unoccupied native huts. During the rainy season they seem to disappear

NOTE.—The Returns of the cases treated by S.A.S. Kelkar during the year are not reproduced here. The cases numbered 1,605 (of which 574 were Injuries and 275 Bronchitis) amongst " Native Officials " and 420 (of which 62 were Yaws, 35 Syphilis, and 98 Ulcers), amongst the Native General Population (J.B.D.).

APPENDIX.

An Epidemic of Ulcers of the Extremities amongst the Native Staff of the Anglo-Belgian Boundary Commission.—Whilst the Commission was in the Ruanda area, especially in the Kissake sub-district of Lukira, during February, March, April, May, and three weeks of June, 1923, the permanent porters and followers suffered from some specific Ulcers, which were not amenable to any usual treatment. This condition took on an epidemic character during the latter part of the stay in the area and caused great anxiety, owing to the rapid decrease in the number of fit porters. Various methods of treatment were tried, but, during our stay in that area, the net result was a considerable loss of drugs and dressings with apparently no good results or reduction in case incidence.

Description and Course of the Ulcers.—A small blister-like pimple, the size of a pea, very itchy, was the first sign every subject brought to notice. This broke, either by scratching or by itself, and exposed a sauce-shaped depression, with a well-defined and raised margin. The base was whitish and granular, and the surrounding tissue was not inflamed. These Ulcers, however, extended peripherally and the margins became more and more well-defined, and thickened and retained either an oval or a circular shape. The size varied from that of a fifty cent. piece to that of a rupee. In some Ulcers, a crusty or brownish-looking scab was formed, but, on pressing the scab, sero-purulent discharge was still exuded, denoting false healing. The real healing process began at the centre and extended towards the margins, and at the site of the healed Ulcer a large, thin coppery-coloured cicatrix was left.

The patient always shewed great depression of spirits and loss of energy ; the Ulcers usually occurred on legs and feet.

Incidence.—March, 17 cases. April, 19 cases. May, 28 cases and 9 cases till the 20th June. On the average, these cases took twenty-nine days to heal, under a mixed treatment.

Treatment Tried.—In spite of aseptic dressings, combined with either " 914 " or Antimony Tartrate intravenously, or increasing doses of Pot. Iodide, the Ulcers took their own course.

Three cases with two intravenous " 914 " each : no results.
Six cases with intravenous Antimony Tartrate : two good results.
Increasing doses of Pot. Iodide up to 30 grains p.d. : one good result.
Tonics and dietetic treatment : no results.

All the above were tried with caustics, astringents, anti-septics, mild and strong ointments, etc. ; compulsory baths every second day ; compulsory washing of clothing and blankets and dipping them in Hycol solution every week, spraying and disinfecting quarters every week.

With all the above, the cases still occurred persistently, but no sooner had we left the Ruanda area in the end week of June than the Ulcers began to heal rapidly with simple dressings, in spite of the strain of walking, etc., and no new cases occurred.

These Ulcers, therefore, whatever their origin, may well be called " Ruanda sores."

The Director of the Bacteriological Laboratory, on examination of a certain number of slides, reported "Vincent's Infection."

Several species (three kinds) of blood-sucking flies were present in the area in which the porters were working and they were, of course, bitten by these.

These flies, together with some slides, were posted from Luchachi's for the opinion of the Director of Laboratory, but, unfortunately, they were lost in transit.

A photograph showing these Ulcers is attached.

Three Days Fever (Non-Malarial).

When the Commission arrived at Luchachi's from Nchiri, 36 out of 148 Native Officials suffered from three days fever during the period 28th June to the 10th of July, 1923.

Signs and Symptoms.—The disease was ushered in by incessent temporal headache of a throbbing character, with pains in joints and limbs, and within eight to ten hours the temperature rose to 101°-102°, with pulse full and bounding. Feelings of Nausea, bowels constipated, tongue dry, coated and furred in the centre and red at the margins and the tip; the patient feeling very thirsty. No cold in the nose. No throat symptoms. Respiratory system normal, except for hurried breathing. Urine scanty and high-coloured, shewing a thick ring of albumen with nitric acid. Liver normal; spleen palpable. No rash on the skin. The patient became very restless, passed sleepless nights and did not like to be disturbed.

The condition lasted for seventy-two hours, when the temperature came down by crisis, usually to one degree below normal, with profuse frontal sweating. In three cases, nasal hæmorrhage. The period of convalescence was two days with a stimulant tonic.

Quinine, phenacetin, aspirin, etc., proved of very little value. Sodii salicylas gave a certain amount of relief.

Blood smears.—Negative for Malaria; negative for Spirillum.

Incidence :—	28th June	4 cases.
	29th June	6 ,,
	30th June	5 ,,
	1st July	6 ,,
	2nd July	4 ,,
	3rd July	5 ,,
	4th July	3 ,,
	5th July	3 ,,

On the 1st of July, isolation and segregation precautions were taken and by the 6th of July the disease was checked; on the 10th of July the convalescents were discharged cured.

V. *REPORT ON THE HEALTH OF THE PRISONERS, 1923.*

In his despatch, No. 113 of February 7th, 1923, the Secretary of State directed that a section on the health and conditions of life of prisoners should be included in the Annual Medical Report of the Territory. Brief sections on this subject were included in the Annual Medical Reports for 1921 and 1922, but a questionaire was circulated to Medical Officers and Sub-Assistant Surgeons in April, 1923, with instructions to collect materials for the reply to be forwarded with their Annual Medical Reports for 1923.

Full information has been obtained concerning twenty-five prisons and, in ten instances, is supplied by European Medical Officers: in the remainder, Sub-Assistant Surgeons or Compounders are in medical charge and have furnished the replies.

There are altogether forty-four prisons in the Territory: several are at stations where the medical department is represented only by a Native Dresser or Asiatic Compounder: a few of the returns by Compounders have been considered sufficiently detailed and accurate for inclusion in this summary, but their opinions on the causes of death must be accepted with reserve.

Such of the information received as can usefully be tabulated will be found on pp. 161-168: it will be convenient here to consider the replies received on other subjects.

On the *Diet* and *Hours of Meals*, complete information has been received from eighteen stations: four of these stated that two meals a day are provided, usually at noon and 5.0 p.m.; fourteen that three meals a day is the rule, these meals being served at 5.30 or 6.0 a.m., noon, and 4.30 to 6.0 p.m. Among the unsophisticated, two or one meal a day is the usual native custom, and it is principally in the remoter stations that two meals only are allowed. Replies on the subject of diet are mostly to the effect that the diet is according to the scale laid down: this was reproduced in the Annual Medical Report for 1922. A number add that green or fresh food is given "when available." The diet, according to calorie value, is probably ample, but two other matters connected with it are of equal or even greater importance and experience during the year under review makes it doubtful whether this is yet generally recognised by the police, or even the medical staff. In last year's report reference was made to these factors, viz.:—

(1) The storage and cooking of food.

(2) The importance of the inclusion of fresh uncooked or lightly cooked food in the dietary.

A serious outbreak of disease at the Central Gaol, Morogoro, in the early months of the year, which was investigated by the Senior Sanitation Officer and the Director of the Laboratory, is discussed below and serves to emphasise the importance of these subjects, which are impressed upon prison officers and the medical staff by the Administrative Officers of the Medical Department when on tour. An interesting article on the use of germinated pulses and beans, by Major Jolly, I.M.S., which appeared in the Indian Medical Gazette for June, 1923, was forwarded to the Commissioner of Police and to some of the Medical Staff: some of the pulses and beans enumerated by Major Jolly are grown in this Territory and, in the opinion of the writer, the use of these foods, germinated by the processes described, would have a distinct effect on the sickness and death rate in gaols. In prison gardens, which are maintained at many gaols, should be grown foods which can be eaten uncooked, as well as the usual staple articles of diet.

Under the heading "*Prevailing Diseases*," Malaria is mentioned twelve times; respiratory diseases, principally Bronchitis and Influenza, sixteen times; Diarrhœa and Ulcers, seven times each; minor injuries, nine times; Venereal diseases, four times; Dysentery is mentioned once, as are also Ankylostomiasis, Schistosomiasis and Boils. Chicken-pox and Tæniasis are twice mentioned.

The *Labour* upon which convicts are employed is of a varied description: the replies mention, of skilled or semi-skilled employment, rope-making (1), soap-making (1), mat-making (5), carpentering (2), tailoring (5). Of unskilled occupations are mentioned wood-cutting (14), water carrying (7), road-making and repairing (10), lime-burning (5), "manual labour" (8), agriculture, including work in the prison garden (7), sanitary work and grass-cutting (8), township and station improvements (6), building—chiefly of prison and police lines—(8), stone-quarrying and breaking (3), white-washing buildings (1), brick-making (2), pumping water (1), carrying firewood (2). Probably at all stations the conservancy work of the gaol and police lines is performed by the convicts, although this is mentioned twice only.

The *Hours* of *Work* in the great majority of returns are stated as:—

Week days, except Saturdays: 6.0 or 6.30 a.m. to 4 or 4.30 p.m., with one hour's rest in the middle of the day.
Saturdays: 6.0 or 6.30 a.m. to 12 noon.
Sundays: Only essential sanitary duties.

In two instances an interval of two instead of one hour is allowed in the middle of the day.

The *System of Confinement* is reported to be by Association cells in twenty-three replies, by the separate system in one (Iringa) and, in one reply, is not stated. In addition there are five single cells at Bukoba, four at Moshi, and three solitary confinement cells at Dar-es-Salaam.

Sanitary buckets are provided at night for each occupied cell at twenty-two prisons. There is no information on this point from three prisons (Mwanza, Moshi and Utete).

Drinking water is provided at night in each occupied cell at twenty-three prisons: is not provided at one (Utete), and no reply to the question is given regarding Mwanza.

The number of *Blankets* supplied at night varies from one to three, according to the climate of the station and the season of the year: in many cases a mat or hide is mentioned as being also provided.

The *Clothing* is reported to be sufficient in all cases (21) in which the question on this subject is answered.

As will be seen from the Table on pp. 161-168, there were 76 *Deaths* amongst convicts in these 25 gaols, which contained an *Average Number* of 1,560.3 convicts, giving a death rate of 49 per 1,000. If, however, Morogoro gaol is excluded, the death rate becomes 32, approximately per 1,000.

The Causes of Death may be tabulated as follows:—

Infective Diseases.	
Dysentery	4
Influenza	5
Malaria	2
Pneumonia	8
Tuberculosis	8–27
Circulatory and Respiratory System.	
Valvular Disease of Heart	2
Chronic Bronchitis	1
Broncho-pneumonia	1–4
Digestive System.	
Diarrhœa	18
Gastro Enteritis	1
Gangrenous Appendicitis	1
Cirrhosis of Liver	2
Ascites	1–23
Nervous System.	
Apoplexy	1
Epilepsy	5–6
General Diseases.	
Anæmia	1
Debility	2
Scurvy	1–4
Urinary System.	
Acute Nephritis	1
Cystitis	2–3
Miscellaneous.	
Enlarged Scrotum	1
Cellulitis and weakness	1
Ruptured Spleen	1–3
Animal Parasites.	
Ankylostomiasis	5
Filariasis	1–6
Total	76

Enquiry was also made concerning *Improvements* suggested by Medical Officers, and the resulting action by the Police Authorities. On the subject of diet, the suggestion that green food or germinated beans should be supplied was frequently made and was usually adopted by the Prison Authorities " as far as possible." Improvements recommended to cell accommodation were (1) improved ventilation; (2) cementing or re-cementing floors; (3) improved latrine accommodation and drainage: in a few instances it was possible to act upon these recommendations forthwith: in other cases they were noted for future action or for inclusion in the next Estimates.

For animal and insect pests the recommendations made were usually adopted by the Medical Officer or Police Authorities at once: traps and poison were employed against rats and mice: clothing was boiled to destroy bugs, lice and fleas, combated by cleansing, and disinfection of cells and increased attention to personal cleanliness of convicts. Some of the Medical Staff recommended that food should be stored in rat-proof bins; a recommendation which may be heartily endorsed, but has still, in the majority of cases, to be adopted.

Mwanza Prison.—In the Annual Medical Report for 1922, eighteen deaths, eight of which were due to disease of the respiratory system, were recorded from this gaol. In his report for 1922, the Medical Officer remarked that improvements had been made to the unsatisfactory ventilation of the cells and " it will be interesting to see the effect on the mortality." In 1923, there were six deaths at this gaol, only one of which was due to respiratory disease. This gaol was inspected by the writer in September, 1923, and the ventilation of the cells was considered to be adequate.

	Arusha.	Bagamoyo.	Bukoba.
1. Number of Prisoners in Prison on 31/12/22 ..	46	19	192
2. Number of Persons committed to Prison, 1923	257	106	815
3. Number of Prisoners in Prison on 31/12/23 ..	49	44	135
4. Daily average number of Prisoners, 1923 ..	37·5	30	138
5. Number admitted to Prison sick-bay, 1923 ..	—	18	98
6. Number admitted to Native Hospital, 1923 ..	43	6	6
7. Daily average on Sick List	1·36	1·61	9
8. Number of deaths of Prisoners, 1923	—	1	3
9. Cause of death in each case (i)	—	Pneumonia	Urethral Stricture and Cystitis
(ii)	—	—	Gastro-enteritis
(iii)	—	—	Valvular disease of the heart
(iv)	—	—	—
(v)	—	—	—
(vi)	—	—	—
(vii)	—	—	—
10. Period of detention in Prison prior to date of death .. .. (i)	—	11 months	69 days
(ii)	—	—	60 days
(iii)	—	—	30 days
(iv)	—	—	—
(v)	—	—	—
(vi)	—	—	—
(vii)	—	—	—
11. System of Confinement—Association cells (A.C.) or Single cells (S.C.)	A.C.	A.C.	5 A.C. 5 S.C.
12. Cubic space available at night per Prisoner, taking average number	320 c. ft.	500 c. ft.	255 c. ft.
13. Floor space ditto	28 sq. ft.	42 sq. ft.	23 sq. ft.
14. Sanitary condition of Prison	Very good	Extremely satisfactory	Good
15. Are floors of cells cemented ?	No	Yes	Yes
16. Vaccination : Number vaccinated, 1923 ..	87	59	—
Result :—Successful	35	28	—
Modified	—	12	—
Failures	52	15	—
Number excused vaccination on account previous small-pox or successful recent vaccination	The majority	66	—
Number not protected against small-pox..	?	—	No record
17. Infective Diseases : Number of cases of :—			
Chicken-pox	1	—	—
Dysentery	3	—	—
Influenza	8	—	—
Other	—	—	—
18. Insect and other Pests in Prison :—			
Lice	Yes	—	—
Bugs	—	—	—
Fleas	—	—	—
Ornithodorus Moubata	—	—	—
Rats	Yes	—	Yes
Mice	Yes	—	—
19. Is there a weight register ?	Yes	Yes	Yes
And is it up-to-date ?	Yes	Yes	Yes

	Dar-es-Salaam.	Dodoma.	Iringa.
1. Number of Prisoners in Prison on 31/12/22	171	89	30
2. Number of Persons committed to Prison, 1923	555	181	357
3. Number of Prisoners in Prison on 31/12/23	144	79	55
4. Daily average number of Prisoners, 1923	166	83·2	48·63
5. Number admitted to Prison sick-bay, 1923	71	92	—
6. Number admitted to Native Hospital, 1923	54 and 15 to I.D.H.	8	7
7. Daily average on Sick List	3	9·1	·36
8. Number of deaths of Prisoners, 1923	6	—	2
9. Cause of death in each case (i)	Tuberculosis Lungs	—	Pneumonia
(ii)	Filariasis	—	Tuberculosis
(iii)	Ankylostomiasis	—	—
(iv)	Cystitis	—	—
(v)	Tuberculosis of Lungs	—	—
(vi)	Ankylostomiasis	—	—
(vii)	—	—	—
10. Period of detention in Prison prior to date of death (i)	22 days	—	1 week
(ii)	21 months	—	3 weeks
(iii)	5½ months	—	—
(iv)	3½ years	—	—
(v)	4½ months	—	—
(vi)	5½ years	—	—
(vii)	—	—	—
11. System of Confinement—Association cells (A.C.) or Single cells (S.C.)	A.C. & 3 S.C.	A.C.	S.C.
12. Cubic space available at night per Prisoner, taking average number	675 c. ft.	240 c. ft.	697 c. ft.
13. Floor space ditto	—	22·7 sq. ft.	45 sq. ft.
14. Sanitary condition of Prison	Good	Good	Good
15. Are floors of cells cemented ?	Yes	Yes	Yes
16. Vaccination : Number vaccinated, 1923	—	No record	All protected by previous vaccination
Result :—Successful	—	—	
Modified	—	—	
Failures	—	—	—
Number excused vaccination on account previous small-pox or successful recent vaccination	—	—	—
Number not protected against small-pox	—	—	—
17. Infective Diseases : Number of cases of :—			
Chicken-pox	15	28	—
Dysentery	—	1	—
Influenza	—	—	—
Other	—	2 T.B.	—
18. Insect and other Pests in Prison :—			
Lice	—	—	—
Bugs	—	—	—
Fleas	—	Yes	—
Ornithodorus Moubata	—	—	—
Rats	—	—	—
Mice	—	—	—
19. Is there a weight register ?	Yes	Yes	Yes
And is it up-to-date ?	Yes	No.	Yes

	Kigoma.	Kilossa.	Kilwa.	Kondoa-Irangi.
1. Number of Prisoners in Prison on 31/12/22 ..	55	7	38	17
2. Number of Persons committed to Prison, 1923	238	89	173	187
3. Number of Prisoners in Prison on 31/12/23 ..	55	8	29	46
4. Daily average number of Prisoners, 1923 ..	57·49	10	30·30	41·9
5. Number admitted to Prison sick-bay, 1923 ..	120	—	—	—
6. Number admitted to Native Hospital, 1923 ..	16	—	2	32
7. Daily average on Sick List	1	—	3	4·5
8. Number of deaths of Prisoners, 1923	3	—	—	—
9. Cause of death in each case (i)	Rupture of Spleen	—	—	—
(ii)	Influenzal Pneumonia	—	—	—
(iii)	Ascites	—	—	—
(iv)	—	—	—	—
(v)	—	—	—	—
(vi)	—	—	—	—
(vii)	—	—	—	—
10. Period of detention in Prison prior to date of death .. .. (i)	326 days	—	—	—
(ii)	89 days	—	—	—
(iii)	20 days	—	—	—
(iv)	—	—	—	—
(v)	—	—	—	—
(vi)	—	—	—	—
(vii)	—	—	—	—
11. System of Confinement—Association cells (A.C.) or Single cells (S.C.)	A.C.	A.C.	A.C.	A.C.
12. Cubic space available at night per Prisoner, taking average number	498·22 c. ft.	449 c. ft.	643 c. ft.	900 c. ft.
13. Floor space ditto	55 sq. ft.	60 sq. ft.	75 sq. ft.	60 sq. ft.
14. Sanitary condition of Prison	Good	Good	Good	Good
15. Are floors of cells cemented?	No	Yes	Yes	Yes
16. Vaccination: Number vaccinated, 1923 ..	No record	70	50	43
Result:—Successful	—	30	25	8
Modified	—	24	10	8
Failures	—	16	15	5
Number excused vaccination on account previous small-pox or successful recent vaccination	—	19	3	No record
Number not protected against small-pox..	—	—	5	—
17. Infective Diseases: Number of cases of:—				
Chicken-pox	—	—	—	—
Dysentery	1	—	—	—
Influenza	7	—	—	—
Other	12 Mumps	—	—	—
18. Insect and other Pests in Prison:—				
Lice	Yes	—	—	—
Bugs	Yes	Yes	—	—
Fleas	Yes	—	—	—
Ornithodorus Moubata	Yes	—	—	Yes
Rats	Yes	—	—	—
Mice	Yes	—	—	—
19. Is there a weight register?	Yes	No	Yes	Yes
And is it up-to-date?	Yes	—	Yes	Yes

	Lindi.	Lushoto.	Mikindani.
1. Number of Prisoners in Prison on 31/12/22	50	23	15
2. Number of Persons committed to Prison, 1923	38	113	180
3. Number of Prisoners in Prison on 31/12/23	281	16	15
4. Daily average number of Prisoners, 1923	46	16	18
5. Number admitted to Prison sick-bay, 1923	15	26	—
6. Number admitted to Native Hospital, 1923	40	3	2
7. Daily average on Sick List	5	·07	1·34
8. Number of deaths of Prisoners, 1923	2	—	1
9. Cause of death in each case (i)	Apoplexy	—	Cerebral Malaria
(ii)	Anæmia	—	—
(iii)	—	—	—
(iv)	—	—	—
(v)	—	—	—
(vi)	—	—	—
(vii)	—	—	—
10. Period of detention in Prison prior to date of death (i)	31 days	—	19 days
(ii)	163 days	—	—
(iii)	—	—	—
(iv)	—	—	—
(v)	—	—	—
(vi)	—	—	—
(vii)	—	—	—
11. System of Confinement—Association cells (A.C.) or Single cells (S.C.)	A.C.	A.C.	A.C.
12. Cubic space available at night per Prisoner, taking average number	844 c. ft.	758$\frac{5}{8}$ c. ft.	254 c. ft.
13. Floor space ditto	67 sq. ft.	50 sq. ft.	40 sq. ft.
14. Sanitary condition of Prison	Very satisfactory	Fair	Fair, ventilation bad
15. Are floors of cells cemented ?	Yes	Yes	No
16. Vaccination : Number vaccinated, 1923	No record	100	29
Result :—Successful	—	43	13
Modified	—	47	8
Failures	—	10	8
Number excused vaccination on account previous small-pox or successful recent vaccination	—	5	—
Number not protected against small-pox	—	—	No record
17. Infective Diseases : Number of cases of :—			
Chicken-pox	—	—	—
Dysentery	—	—	—
Influenza	—	—	—
Other	—	2 Small-pox	4 Mumps
18. Insect and other Pests in Prison :—			
Lice	—	—	—
Bugs	—	—	—
Fleas	—	—	—
Ornithodorus Moubata	—	—	—
Rats	—	—	—
Mice	—	—	—
19. Is there a weight register ?	Yes	Yes	No.
And is it up-to-date ?	Yes	Yes	—

	Morogoro.	Moshi.	Mwanza.
1. Number of Prisoners in Prison on 31/12/22 ..	174	53	119
2. Number of Persons committed to Prison, 1923	182	254	274
3. Number of Prisoners in Prison on 31/12/23 ..	178	43	135
4. Daily average number of Prisoners, 1923 ..	161	38·5	164·67
5. Number admitted to Prison sick-bay, 1923 ..	187	—	147
6. Number admitted to Native Hospital, 1923 ..	91	4	25
7. Daily average on Sick List	8 to 10	3·25	19·83
8. Number of deaths of Prisoners, 1923	31	—	6
9. Cause of death in each case (i)	—	—	Epilepsy
(ii)	—	—	Chronic Dysentery
(iii)	—	—	Cirrhosis of Liver
(iv)	—	—	Gangrenous Appendicitis
(v)	*See* page 169	—	Double Pneumonia
(vi)	—	—	Amœbic Dysentery
(vii)	—	—	—
10. Period of detention in Prison prior to date of death .. .. (i)	—	—	5 months
(ii)	—	—	15 months
(iii)	—	—	14½ months
(iv)	*See* page 169	—	58 days
(v)	—	—	4 months
(vi)	—	—	11 months
(vii)	—	—	1 month
11. System of Confinement—Association cells (A.C.) or Single cells (S.C.)	A.C.	1 A.C. 4 S.C.	A.C.
12. Cubic space available at night per Prisoner, taking average number	300 c. ft.	571 c. ft.	400 c. ft.
13. Floor space ditto	20 sq. ft.	57 sq. ft.	32 sq. ft.
14. Sanitary condition of Prison	Good	Satisfactory	Very Good
15. Are floors of cells cemented ?	Yes	Yes	Yes
16. Vaccination : Number vaccinated, 1923 ..	144	—	No record
Result :—Successful	140	—	—
Modified	4	—	—
Failures	—	—	—
Number excused vaccination on account previous small-pox or successful recent vaccination	—	—	—
Number not protected against small-pox..	144	—	—
17. Infective Diseases : Number of cases of :—			
Chicken-pox	15	—	—
Dysentery	6	—	—
Influenza	—	14	—
Other	—	—	—
18. Insect and other Pests in Prison :—			
Lice	—	—	No information
Bugs	Yes	—	—
Fleas	—	—	—
Ornithodorus Moubata	—	—	—
Rats	Yes	Yes	—
Mice	—	—	—
19. Is there a weight register ?	Yes	Yes	No information
And is it up-to-date ?	(For long sentence convicts)	Yes	No information

	Namanyere.	Pangani.	Singidda.
1. Number of Prisoners in Prison on 31/12/22	13	24	5
2. Number of Persons committed to Prison, 1923	132	299	67
3. Number of Prisoners in Prison on 31/12/23	14	33	25
4. Daily average number of Prisoners, 1923	20·09	30·2	18
5. Number admitted to Prison sick-bay, 1923	3	—	—
6. Number admitted to Native Hospital, 1923	—	1	25
7. Daily average on Sick List	3·19	4·5	·5
8. Number of deaths of Prisoners, 1923	—	—	—
9. Cause of death in each case (i)	—	—	—
(ii)	—	—	—
(iii)	—	—	—
(iv)	—	—	—
(v)	—	—	—
(vi)	—	—	—
(vii)	—	—	—
10. Period of detention in Prison prior to date of death (i)	—	—	—
(ii)	—	—	—
(iii)	—	—	—
(iv)	—	—	—
(v)	—	—	—
(vi)	—	—	—
(vii)	—	—	—
11. System of Confinement—Association cells (A.C.) or Single cells (S.C.)	A.C.	A.C.	A.C.
12. Cubic space available at night per Prisoner, taking average number	483·33 c. ft.	400 c. ft.	No information
13. Floor space ditto	48·33 sq. ft.	37 sq. ft.	—
14. Sanitary condition of Prison	Good	Very Good	Satisfactory
15. Are floors of cells cemented ?	No	Yes	No
16. Vaccination : Number vaccinated, 1923	53	20	42
Result :—Successful	17	20	37
Modified	2	—	3
Failures	34	—	2
Number excused vaccination on account previous small-pox or successful recent vaccination	—	—	30
Number not protected against small-pox	No record	No record	2
17. Infective Diseases : Number of cases of :—			
Chicken-pox	—	—	—
Dysentery	—	—	—
Influenza	—	—	—
Other	—	—	—
18. Insect and other Pests in Prison :—			
Lice	—	—	—
Bugs	—	—	—
Fleas	—	—	Yes
Ornithodorus Moubata	—	—	—
Rats	—	Yes	Yes
Mice	—	—	—
19. Is there a weight register ?	Yes	Yes	No
And is it up-to-date ?	Yes	Yes	—

	Songea.	Tabora.	Tanga.
1. Number of Prisoners in Prison on 31/12/22	50	176	114
2. Number of Persons committed to Prison, 1923	137	581	344
3. Number of Prisoners in Prison on 31/12/23	32	113	124
4. Daily average number of Prisoners, 1923	23	133	116
5. Number admitted to Prison sick-bay, 1923	29	195	—
6. Number admitted to Native Hospital, 1923	18	17	22
7. Daily average on Sick List	6	9	1·08
8. Number of deaths of Prisoners, 1923	1 (insane)	7	5
9. Cause of death in each case (i)	Pneumonia	Epilepsy	Pneumonia and Pleurisy
(ii)	—	Double Pneumonia	Chronic Diarrhœa
(iii)	—	T.B., Pulmonary	Chronic Bronchitis
iv)	—	Epilepsy	Cellulitis and Weakness
(v)	—	Epilepsy	Senile Debility
(vi)	—	Epilepsy	—
(vii)	—	Malaria	—
10. Period of detention in Prison prior to date of death (i)	1 week	2 months	1 year 8 days
(ii)	—	2 months	1 year 2 days
(iii)	—	4½ months	6 months
(iv)	—	2½ years	1 month
(v)	—	7 months	2 months
(vi)	—	8 months	—
(vii)	—	8 months	—
11. System of Confinement—Association cells (A.C.) or Single cells (S.C.)	A.C.	A.C.	A.C.
12. Cubic space available at night per Prisoner, taking average number	500 c. ft.	300 c. ft.	500 c. ft.
13. Floor space ditto	35 sq. ft.	27 sq. ft.	35 sq. ft.
14. Sanitary condition of Prison	Satisfactory	Good	Bad
15. Are floors of cells cemented?	No	Yes	Yes
16. Vaccination: Number vaccinated, 1923	—	No record	75
Result :—Successful	—	—	45
Modified	—	—	—
Failures	—	—	30
Number excused vaccination on account previous small-pox or successful recent vaccination	—	—	—
Number not protected against small-pox	All	—	—
17. Infective Diseases: Number of cases of :—			
Chicken-pox	3	—	17
Dysentery	—	6	—
Influenza	—	61	—
Other	—	4 Mumps 1 T.B. Pulmonary	—
18. Insect and other Pests in Prison :—			
Lice	—	—	—
Bugs	—	—	Yes
Fleas	—	—	—
Ornithodorus Moubata	—	—	—
Rats	—	Yes	Yes
Mice	—	—	—
19. Is there a weight register?	Yes	Yes	Yes
And is it up-to-date?	Yes	Yes	Yes

	Tunduru.	Tukuyu.	Utete.
1. Number of Prisoners in Prison on 31/12/22 ..	—	124	17
2. Number of Persons committed to Prison, 1923	17	299	75
3. Number of Prisoners in Prison on 31/12/23 ..	3	106	16
4. Daily average number of Prisoners, 1923 ..	3·4	106	23·5
5. Number admitted to Prison sick-bay, 1923 ..	—	—	25
6. Number admitted to Native Hospital, 1923 ..	—	124	—
7. Daily average on Sick List	·08	6	2·2
8. Number of deaths of Prisoners, 1923	—	7	1
9. Cause of death in each case (i)	—	Acute Nephritis	Ankylostomiasis.
(ii)	—	Influenzal Pneumonia	—
(iii)	—	,,	—
(iv)	—	,,	—
(v)	—	Broncho-Pneumonia	—
(vi)	—	Influenzal Penumonia	—
(vii)	—	Penumonia : Pericarditis	—
10. Period of detention in Prison prior to date of death .. .. (i)	—	3 months	15 years
(ii)	—	3½ months	—
(iii)	—	2 months	—
(iv)	—	7 weeks	—
(v)	—	6½ months	—
(vi)	—	3 weeks	—
(vii)	—	2 weeks	—
11. System of Confinement—Association cells (A.C.) or Single cells (S.C.)	A.C.	A. Wards	No information
12. Cubic space available at night per Prisoner, taking average number	921 c. ft.	1,350 c. ft.	—
13. Floor space ditto	102 sq. ft.	72 sq. ft.	—
14. Sanitary condition of Prison	Excellent	No information	Satisfactory
15. Are floors of cells cemented ?	No	No	No
16. Vaccination : Number vaccinated, 1923 ..	7	65	24
Result :—Successful	7	27	10
Modified	—	4	7
Failures	—	34	7
Number excused vaccination on account previous small-pox or successful recent vaccination	—	—	51
Number not protected against small-pox..	No record	No record	24
17. Infective Diseases : Number of cases of :—			
Chicken-pox	—	—	—
Dysentery	—	—	3
Influenza	—	136	—
Other	—	—	—
18. Insect and other Pests in Prison :—			
Lice	—	Yes	—
Bugs	—	Yes	—
Fleas	—	—	—
Ornithodorus Moubata	—	—	—
Rats	—	—	Yes
Mice	—	—	—
19. Is there a weight register ?	No	Yes	No
And is it up-to-date ?	—	Yes	—

Morogoro Prison.—During 1923 there were thirty-one deaths at this gaol compared to three in 1922.

The cause of death in 1923 and the periods of detention in gaol, prior to death, were as follows :—

Cause of Death.	Period of Detention.			Cause of Death.	Period of Detention.		
	Yrs.	Mos.	Days.		Yrs.	Mos.	Days.
1. Tuberculosis	1	8	7	16. Diarrhœa	2	8	14
2. Dysentery and Debility	2	1	12	17. ,, ...	1	0	1
3. Ankylostomiasis ..		8	23	18. ,, ...	3	1	19
4. ,, ..	2	4	13	19. ,, ...	3	5	3
5. Tuberculosis of Lungs	1	8	14	20. ,, ...	2	2	7
6. ,, ,,	4	1	0	21. ,, ...	2	3	11
7. Diarrhœa		9	1	22. ,, ...	3	10	7
8. Diarrhœa and Tape Worms	5	1	27	23. ,, ...	1	9	0
9. Heart Disease ..	2	1	18	24. ,, ...		11	23
10. Diarrhœa and Debility	2	8	2	25. Pneumonia		2	16
11. Dysentery	6	1	10	26. Enlarged Scrotum ..	2	4	0
12. Diarrhœa	7	3	29	27. Diarrhœa and Debility		6	26
13. ,, ...	2	5	7	28. Tuberculosis of Lungs	2	7	3
14. ,, ...	1	1	18	29. Cirrhosis of the Liver		2	25
15. ,, ...	2	6	8	30, Scurvy and Diarrhœa	3	2	13
				31. Progressive Debility ..		11	26

As a result of an inspection of this first class prison in July, 1921, the writer unhesitatingly condemned it as unfit and incapable of being made fit for use as a prison ; recommended that it should be evacuated and a new gaol built on a more suitable site. Two successive Senior Sanitation Officers have made closely similar reports. The Sub-Assistant Surgeon has reported the sanitary condition of this gaol to be " good " : it has not been possible, owing to shortage in the staff, to station a European Medical Officer at Morogoro during any part of 1923. The Senior Sanitation Officer inspected the Morogoro prison in May, 1923, and reported " that the buildings were neither well designed nor well built, further, that a " portion of the gaol has recently fallen down and been re-erected " ; that there were many bugs and that it is doubtful if they could be eradicated. A new gaol is to be constructed.

That the majority of the deaths in 1923 amongst convicts detained in this gaol were due to dietetic errors, there can be no doubt. The Director of Laboratory mentions in his report, p. 199, the result of his investigations into a few cases of Diarrhœa and Debility which occurred in the early months of the year. The adoption of the recommendations which he and the Senior Sanitation Officer made on the dietary stopped the occurrence of new cases of Diarrhœa, but many of those already in hospital were beyond the stage where recovery was possible. There were four deaths from Tuberculosis in this gaol.

Tanga.—It will be observed that the Acting Senior Medical Officer, Tanga, has described the sanitary condition of this gaol as " bad." Five convicts confined in this gaol died during 1923 and, in four of these cases, to the principal cause of death is added " Debility."

The Medical Officer of Health, Tanga (p. 78), refers to the unsatisfactory latrines and food store, matters which were reported upon by the writer and the Senior Sanitation Officer after inspections of this gaol in the year under review.

The structural alterations required to improve the latrine accommodation are extensive : plans and estimates have been submitted. The food storage question is one which applies to many prisons and can be best met by the provision of rat-proof stores and bins, which the Commissioner of Police and Prisons has been advised to provide.

Inspections.—The Principal Medical Officer inspected the Tanga, Tabora, Mwanza and Shinyanga goals during 1923, and reports on them were forwarded to the Honourable the Chief Secretary and the Commissioner of Police and Prisons.

The Senior Sanitation Officer inspected Pangani, Tanga, Moshi, Arusha, Mikindani, Kilwa, Morogoro and Lindi gaols in 1923 ; copies of his reports were forwarded to the Commissioner of Police and Prisons.

RECOMMENDATIONS.

1. *Diet.*—Errors in diet are the principal cause of sickness and mortality amongst convicts. Our knowledge of food deficiency diseases has been extended so greatly in recent years that there is now, under normal conditions, little or no excuse for their appearance on prison returns. Attention is required to the following :—

(*a*) *Variety.*—Fresh uncooked or very lightly cooked food should form a part of every day's diet. Fruit is readily obtained at some stations ; vegetables, native or other, at most. Whenever possible, every prison should have a prison garden in which, whatever else may be grown, there should be fruit—bananas, oranges, limes, lemons, mangoes, pawpaws, etc., and green vegetables, pumpkins, sweet potatoes, etc., and it should be the duty of the keeper of the gaol to see that the prisoners actually get these foods : this duty cannot safely be left to the native warders. When, owing to the season of the year or other causes, fresh fruit or vegetables cannot be obtained, germinated pulses and beans should be provided. There is a tendency to a too rigid adherence to the bare minimum of the diet scale. It is hardly possible to lay down a definite scale of fruit and vegetables, for the local resources vary so widely in different parts of the country and at the different seasons of the year.

(*b*) *Storage.*—This is of little less importance than variety. It is, unfortunately, by no means uncommon to see prison stores of grains so badly damaged by weevils, etc., that the nutritive value must be greatly reduced. Storage should be in rat-proof bins or stores ; the greatest care is necessary to see that on receipt from the contractor, the food is in good condition and, lastly, that new supplies of grain are not placed in bins or stores already infested with weevils : the old stock remaining should be turned out and aired and the bins or stores thoroughly cleaned before the new stock is stored.

(*c*) *Cooking.*—This is womens' work according to native custom and, wherever possible, should be performed by female convicts. The practice of stewing the rations for many hours until all trace of anti-scorbutic and anti-beri-beri principles has been destroyed is too common. Personal supervision on the part of the European Prison Staff is essential.

These questions of diet are of particular importance in the case of long sentence prisoners and those who, for various reasons, are employed within the prison walls.

It is interesting to note that an outbreak of Beri-beri occurred in the Freetown (Sierra Leone) Gaol in 1922 (Annual Medical and Sanitary Report by the Director of Medical and Sanitary Services, Sierra Leone, 1922). There were fifty-nine cases with three deaths. The outbreak was investigated by the Director, Sir Alfred Lewis Jones Research Laboratory, who considered that the methods of preparation and the prolonged cooking reduce the vitamine content of the diet to such a level that, at the time of year when the grain has already by age and storage lost much of its value, it is insufficiently rich in accessories to prevent Beri-beri. He remarks that animals, on a diet which will ultimately result in the production of Neuritis, show loss of weight and very commonly develop gastro intestinal disorders before the stage of Neuritis is reached, and that one may expect the same sequence of events to occur in human beings on a diet deficient in water soluble B. vitamine. It is also noted in this Annual Report that there was an outbreak of diarrhœa from which one prisoner died shortly before the outbreak of Beri-beri, and that Diarrhœa and Dysentery were important causes of deaths in previous years : further, that half the deaths in 1922 and 57 per cent. of the cases of Beri-beri in Freetown Gaol occurred in tailors, who formed only 15 per cent. of the daily average strength of prisoners.

These observations corroborate the remarks of the Senior Medical Officer, Tabora (Dr. C. L. Ievers), concerning the outbreak of Beri-beri in Tabora Gaol, reported in the Annual Medical Report of Tanganyika Territory for 1922. It is the prisoners who are detailed for indoor duties and are thus deprived of the opportunity of supplementing their rations by fresh fruits on whom the incidence of the disease falls more heavily.

2. *Accommodation.*—Association cells are the rule in East Africa and, though they may present disadvantages from a sanitary view point, solitary confinement is such a serious punishment to the native that a change of system is not urged. Attention should, of course, be paid to the separations of juveniles and first offenders from hardened criminals.

The floors of all cells should be cemented and the walls free of crevices, the lower 18 or 24 inches of the walls should be cemented, the upper parts smoothly plastered and whitewashed at frequent intervals.

Ventilation must be free. Unfortunately, in the early days of the British occupation, additions were hastily made to existing prisons or other buildings, and unsuitable structural alterations carried out by Police Officials without obtaining advice, notably at Morogoro.

No structural alterations should be carried out without the consent in writing of the Medical Officer of Health or Medical Officer of the gaol and the Public Works Department. The temptation to make use of a supply of free labour without troubling anyone, is a strong one: it must be resisted. It has led to the existence of some badly constructed, ill-arranged and insanitary prisons and, in the early days, was unavoidable: it was then a question of providing some accommodation or none. Under the new Township Rules these faults in building should not occur.

Except in a few stations where a water borne system is possible, a satisfactory type of bucket latrine is necessary: the buckets should be removed from outside by a trap door, and the floor of the latrine cemented and provided with foot rests. An incinerator is required near at hand and will probably serve the police lines as well as the gaol.

3. *Hos ital Accommodation.*—It has always been the opinion of the writer that sick convicts should report at the Government hospital or dispensary and that those requiring hospital treatment should be detained there. Diagnosis in Tropical medicine is so largely dependent upon microscopical examination that the institution in prisons of hospital wards, where facilities for such examination cannot be provided, is to be discouraged. The time occupied in these daily visits to the gaol by the Medical Officer is also a consideration. The detention of convicts in the Government hospitals necessitates the provision of special guards: this cannot be avoided. In draft plans for new native hospitals submitted by the Medical Department to the Public Works Department, special accommodation for convicts has been inserted and, except as observation wards, where a sick prisoner, considered unfit for work, may be detained for one or two days, hospital wards in prisons should be abolished. Needless to say, that, in addition to the disadvantage in the matter of diagnosis mentioned above, it is almost impossible to provide efficient attendance, treatment or dieting, in such places. It should be mentioned that the Commissioner of Police and Prisons has always expressed his agreement that the Medical Officer should order to his native hospital any convict whose case he considers necessitates this measure. Local opposition to the provision of the necessary guards is, however, sometimes difficult to overcome, especially at stations where the Medical Department is represented by an Asiatic subordinate.

4. *Lepers and Lunatics.*—The detention, in ordinary gaols, of criminal lepers and lunatics causes great inconvenience to the Prison Authorities and the arrangements for the care of such persons are inadequate. The construction of the asylum at Morogoro will, it is hoped, meet these difficulties, so far as the insane criminal is concerned, in all but the remote out-stations.

In last year's report, mention was made of a proposed establishment for criminal lepers at Morogoro: unfortunately, it has been decided that the scheme is not to be carried out. These lepers will therefore be detained in the ordinary gaols as hitherto.

VI. *SCIENTIFIC.*

Third Report upon Treatment with Bismutho Sodium and Potassium Tartrate.

The use of this salt in the Territory was initiated in 1922 by the Acting Principal Medical Officer (Dr. J. O. Shircore) and previous reports upon the results obtained appeared in the Annual Medical Reports of the Territory for 1921 and 1922.

The preparations employed in 1923 were supplied by Messrs. May and Baker, Messrs. Morson, and Messrs. Martindale, the last-named firm supplying two preparations—Bismuth Sodium Tartrate and Bismuth Potassium Tartrate.

Several misfortunes occurred in the use of the salt in the doses (grains 6) and the method of administration (intravenous) originally employed: instructions were therefore isused to reduce the dose to two grains and employ the intramuscular route of injection. The fact that intramuscular injection causes pain, though not of severe degree, led to some delay in the adoption of the instructions at some stations, but the intramuscular route is now universally adopted. A memorandum by Major A. O. Frost, R.A.M.C., on Bismuth Sodium and Potassium Tartrate, states that " it is ten times more toxic intravenously than into the " muscles "; he considers that, in the treatment of Syphilis, it is " a more active salt than " mercury and should not replace arsenic."

The reports from Medical Officers on the use of B.S.P.T. have been increasingly favourable and, in dealing with the large numbers of cases of Yaws and Syphilis which present themselves at the hospitals, its low cost is a great consideration. The immediate results of the treatment are very encouraging: unfortunately, the patients seldom continue attendance for a complete course, and the ultimate results are very seldom known. This remark, of course, applies equally to other more expensive forms of treatment and, under the circumstances, the production of non-infectivity to others is the best that can be hoped for. If attained, a gradual reduction of the number of cases may be confidently expected.

It is a form of treatment which might well, under a certain degree of supervision, be entrusted to trained native subordinates at village dispensaries, and only in this way can one hope to bring the treatment within the reach of the vast majority of the infected population. A beginning has been made by posting a native dispenser to Negeze in Shinyanga sub-district of Tabora where, as mentioned earlier (p. 105), Sultan Makwaia has erected a native hospital with some assistance from the Government.

At the Sewa Hadji Hospital, Dar-es-Salaam, the Medical Officer (Dr. J. M. Semple) has treated, during 1923, 271 cases of Yaws and 144 of Syphilis with B.S.P.T. He states that, unless detained as in-patients (and, even then, they not infrequently run away), the natives cease attending after definite improvement shows itself. The pressure on the available accommodation at this hospital prevents the detention of any considerable number. Dr. Semple has used four preparations, and reports as follows:—

B. Sodium Tartrate (Martindale)—dose used, 2-5 grs. intramuscularly or 1-2 grs. intravenously. Stomatitis developed in 26 per cent.

B. Potassium Tartrate (Martindale): dose used, 2 grains intravenously. Stomatitis developed in 14.3 per cent.

B. Sodium Potassium Tartrate (Morson): dose used, 1-2 grs. intramuscularly or ½-2 grs. intravenously. Stomatitis developed in 8.6 per cent.

B. Sodium Potassium Tartrate (May and Baker): dose used, 1 grain intramuscularly. Stomatitis developed in 0.8 per cent.

In a large number of these cases a Wasserman test was made before commencing treatment, but, as the patients did not return for a second test, the effect of the treatment on the re-action is not known.

At Tanga, the Senior Medical Officer (Dr. T. H. Suffern), reports that he has latterly treated Syphilis and Yaws with B.S.P.T., and that " though not so satisfactory as the " arsenic preparations, sufficient improvement is produced to induce the patients to persevere " and to come in increased numbers." One patient developed a virulent stomatitis with much swelling of the tongue and gums and bloodstained salivation, and died fourteen days after an intravenous injection of 2 grs.

At Arusha, the Medical Officer has tried B.S.P.T. in three cases of Tick Fever: he reports that the drug had no effect on the temperature, the presence of spirilla in the blood or on relapses, which occurred in each case: one of the cases (a K.A.R. askari) had already been treated for the disease in Dar-es-Salaam. The drug is now given in 2 to 2½ grain doses every fifth day for Yaws and Syphilis: he reports that two to four doses clear up ordinary secondary cases of Yaws: one case of Primary Syphilis cleared up after two injections, but returned later with marked secondary symptoms. Early in the year, when employing the intravenous route and a dose of 6 grains, a male Wa-Arusha, aged 25, with secondary Yaws, but otherwise apparently healthy, died from syncope a few minutes after his first injection. Post-mortem; the small intestine was found to be " full of round worms."

At Dodoma, Dr. D. S. Scott (Medical Officer), and his successor, Sub-Assistant Surgeon Chunilal, treated 83 cases of Primary Syphilis, 23 of Secondary Syphilis, and 53 of Yaws. Early in the year, 6 grains intravenously was the dose employed, and there were five fatalities under this treatment. The drug was found to have a rapidly curative effect on the lesions.

At Mwanza, during 1923, 288 cases of Syphilis and 33 of Yaws were treated, but B.S.P.T. was not in use until the second half of the year and no details are furnished as to the results obtained with the drug.

At Morogoro, S.A.S. Borsada treated 160 cases of Yaws; 2 of Primary, 89 of Secondary, and 2 of Tertiary Syphilis with B.S.P.T. Of these, 108 cases of Yaws; 2 of Primary, 54 of Secondary, and 2 of Tertiary Syphilis had at least six intramuscular injections of 2 grains and were kept under observation: to the end of the year they showed no return of symptoms. Only two patients—and those emaciated individuals—showed toxic symptoms. One case of Tick Fever, after a 3 grain intravenous injection, had no relapse.

At Singida, the Sub-Assistant Surgeon in charge treated 12 cases of Primary and 16 of Secondary Syphilis and 11 cases of Yaws with B.S.P.T., mostly by 2 grain doses intramuscularly. Eleven Primary and 11 Secondary Syphilis and 7 Yaws cases received 4 up to 10 injections and are returned as cured: the other cases discontinued attendance. 25 cases developed Stomatitis, mostly the earlier cases, who received doses of 3 or 4 grains intravenously. There were no fatalities.

At Pangani, the Sub-Assistant Surgeon in charge treated 119 cases of Yaws and 20 of Syphilis mostly with a total of 8 to 10 grains of B.S.P.T. in 5 doses. The results are reported as "extremely satisfactory," but in several cases, bleeding from the gums was observed. In one of the earlier cases, after a 5 grain dose, the tongue swelled, the mouth became foul and septic, and the patient died.

The drug has been used at other stations from which incomplete information was submitted: at one of these it is reported that the results were unsatisfactory, but in what respect is not stated.

Reports from Miss Iles, Universities Mission to Central Africa, Dr. J. G. McNaughton, Acting Senior Medical Officer, Tabora, and Sub-Assistant Surgeon Moole (Mikindani) are reproduced below.

SUMMARY.

The Bismuth preparations used have very decided curative effects on cases of Yaws and Primary and Secondary Syphilis. Used with care, in 2 grain doses for adults intramuscularly at 5 or 7 day intervals, no serious risk of the development of grave toxic symptoms is to be feared. Several hundreds of cases of Yaws and Syphilis has been so treated during the year with very encouraging results. As Miss Iles emphasises, emaciated and debilitated patients must be approached with great caution and every effort made to improve the general nutrition, if necessary, before specific treatment is commenced. The state of general nutrition of a large number of natives is extremely poor: they are, in fact, undernourished and, in times of scarcity, very decidedly so. Probably this accounts, in part at least, for the well recognised intolerance of natives of tropical Africa to mercury. The bismuth salts are at no great disadvantage in this respect compared with mercurials; from a therapeutic point of view, they appear to have the advantage.

In Tick Fever the few results reported are disappointing. Epilepsy in natives is such an unsatisfactory condition to treat that Dr. McNaughton's cases are of special interest.

J. B. DAVEY,

Principal Medical Officer.

Miss M. Iles, M.D. (Lond.), of the U.M.C.A., Lulindi, Lindi district, to whom a small supply of Bismuth Sodium Potassium Tartrate was given for trial, has very kindly forwarded a valuable report on her experiences in the treatment of Yaws with this Salt, from which the following notes are extracted :—

Preparations employed :—

I. Martindales soluble Bi.K.T. and Bi.Na.T. separately and, since November 8th, in combination according to the following formula :—

Bi.K.T.	grs.	30
Bi.Na.T.	grs.	30
$\mathrm{NaH.CO_3}$	grs.	10
Aq.	c.c.	120
Dose for an adult or child	3-4	c.c.
Dose for an infant in arms	2-3	c.c.

Once or twice a week, intravenously or into the Gluteus maximus.

II. Since December 13th, Howard's Tartrobismuthate of Soda in doses of gr. 6, for an adult, and grs. $\frac{1}{2}$-2 for children, by intramuscular injection into the Gluteus maximus.

Remarks.—Dose for dose, the curative power of the two preparations seems to be equal. More local swelling and tenderness is caused by Howard's salt, but none of the (12) adults returning for a second injection made complaint of toothache : one had a badly furred tongue. With the other preparations, stomatitis almost invariably developed in patients whose teeth were in bad condition or whose state of nutrition was poor. Miss Iles is of opinion that the results of treatment with Bi. are more lasting than those obtained with Novarsan.

Results.—The following conditions yield, for a time at least, to this treatment : (1) All Secondary Yaws ; (2) of Tertiary Yaws :—

(*a*) All ulcerations of soft tissue, provided the loss of skin is not too great.

(*b*) Hydrops of joints and bursæ.

(*c*) Osteitis of skull.

(*d*) Pain in bones (but not in joints).

(*e*) Ulceration of nose and throat.

(*f*) Recent periosteal swellings will improve and may disappear : the outlook is least favourable in those affecting the hand.

(*g*) Osteomata, diffuse, and localised, may be improved and become painless, but may be unaffected.

Note.—Miss Iles remarks that certain cases are very intractable and that good food is essential to success in treatment.

Recurrence.—Miss Iles considers that recurrence is probably certain in Tertiary Yaws, except when the disease is naturally dying out. In Secondary Yaws, recurrence is perhaps less common than after treatment with neosalvarsan, under which recurrence is common, unless the treatment is supplemented by a course of mercury.

Return of Cases treated at Lulindi U.M.C.A. Hospital by Bismuth salts only :—

	III. Yaws.		II. Yaws.			
			"Buba."		"Mimea."	
	No. of Cases.	Usual amount Bi. Salt, grains.	No. of Cases.	Usual amount Bi. Salt, grains.	No. of Cases.	Usual amount Bi. Salt. grains.
Result :—						
I. Lesions cured	36	8–10	12	4	2	4
II. ,, last seen healing well	14	6–8	10	5½	1	4
III. ,, healing more or less; left during treatment for stomatitis	85	6	17	—	10	—
IV. Lesions healed except for ulcers in scar tissue or without sufficient skin to heal	8	10	—	—	—	—
V. Treatment changed, for stomatitis	4	—	1	—	1	—
VI. Treatment changed, for other reasons ..	6	—	7	—	1	—
VII. Remaining under treatment	51		20	—	12	—
VIII. Death	1	—	—	—	—	—
Total ..	205		67		27	

Note.—" Buba " refers to the crusted secondary lesions : " Mimea " to ulcerations.—*J.B.D.*

The death recorded was that of a fairly nourished woman, an out-patient, who had superficial ulcerations, an old perforation of the hard palate, and what appeared to be recent roughness around the perforation. She was given 1¼ gr. of Bi. Na. T. on October 13th. On October 29th she was brought back with a history of bleeding from the gums and stomach after the injection which improved, but recurred again a week after the injection, and was accompanied by incessant vomiting. She swallowed with great difficulty, vomited at times, and complained of pain over the lower part of the sternum. Her gums were spongy and her throat congested. The symptoms were relieved by morphia and, for two days, she kept down fluids given in ounce doses. On November 1st she brought up at once everything she swallowed. Novarsan, 0.3 gramme, was given intravenously, and by the evening she was swallowing comfortably. She improved until about November 8th, when the vomiting recurred, accompanied this time by Diarrhœa, and she died two days later.

Toxic Symptoms after treatment :—

1. Stomatitis and glossitis in nearly all adults, of slight degree, after 6-8 grains : in a few, with fair teeth, it occurred after the first or second dose. Never seen in children.
2. Aching in joints, universal in slight degree.
3. Congestion and aching of lesions—noticed by the observant.
4. Vomiting, directly after injection, 3 cases.
5. Vertigo, if patients walk after injection and, in the case of elderly persons, even if keeping quiet.
6. Palpitation of the heart : near the end or after the course of treatment,

Bismuth Sodae Potass: Tartr: in the Treatment of Epilepsy.

By J. G. McNaughton, M.D., M.R.C.P. (Edin.), Acting Senior Medical Officer, Tabora.

During the year 1923, sixteen lunatics (civil and criminal) were confined in Tabora Gaol; of these, eight had frequent epileptic or epileptiform seizures.

Four died in the course of the year, and at the post-mortem examination, pachymeningitis was found. This was probably the result of Tertiary Syphilis and was, in my opinion, the cause of the seizures. Acting on these surmises, I began to give injections of the Bismuth Sod. Potas. salt.

First Case.—Safi, a girl, patient in hospital, aged about five years, admitted to Tabora hospital in August, 1922: fits were very frequent, sometimes as often as every day, and there was almost constant nocturnal incontinence of urine. On 14th, 20th and 30th November; 6th, 15th, 25th December, 1923, and January 2nd, 1924, she was given intramuscularly grain ½ of the Bismuth salt. Since 14th November, there has not been a single fit and there has been no incontinence.

Second Case.—Kasele, a criminal lunatic killed his mother just after a fit at the end of September and was admitted to gaol on 4th October, 1923. As far as can be obtained, his history is as follows:—

In July,	1923	7 fits	
,, August,	,,	1 ,,	
,, September,	,,	2 ,,	
,. October,	,,	7 ,,	on the 13th, 14th and 30th.
,, November,	,,	3 ,,	on the 11th, 15th and 20th.
,, December,	,,	1 ,,	on December, 1st.

Injections of 2 grains of the Bismuth salt were given on December 12th, 19th, 27th, 1923, and on January 2nd, 1924. There have been no fits since the first injection, the patient is much more rational and normal.

Third Case.—Farajala, admitted 10th January, 1923. Very noisy and violent, but no history of fits: always worse at full moon; had to be restrained with leg irons, since, in his violent attacks, he tried to assault warders and other inmates of the gaol; he had to be periodically restrained every month, sometimes twice a month. He has received in all three injections to date, beginning on December 12th, and is now quiet and appears quite rational. No restraint has been required since 12th December.

Fourth Case.—Selemani, admitted 10th January, 1923, epileptic maniac; his fit history since June is as follows:—

July	1
August	4
September	8
October	8
November	11

In December, fits on 5th, 6th: injection given on 12th December. Fits on 20th, 28th 29th 30th, 31st: injections repeated 19th and 27th December and 2nd January, 1924. Since 1st January there have been no fits.

Fifth Case.—Asmani, a case of acute mania, following on an epileptic fit. During this attack he broke, with a stick, the humerus of a man near him. Since he was admitted to prison he has had the following fits:—November 12th, 2 and December 7th, 1.

He received 4 injections of 2 grains of the Bismuth salt. Since then he has had no fits and has been extremely rational: he enquires on all possible occasions after the health of the man whom he attacked.

Report by Dr. J. G. McNaughton, Acting Senior Medical Officer, Tabora.

The Senior Commissioner asked me to report on the disease locally known as "Mti Mgonjwa." In the Swahili dictionary the meaning of the phrase is given as "ulcerating sores." Over 80 of these cases were admitted, and I was fortunate in having the advice and guidance of the Hon. the Principal Medical Officer, in my examination and treatment.

After a thorough examination, we came to the conclusion that these were, in most cases, Tertiary Yaws, some of very long standing. In past years, such cases have been treated by injections of salvarsan, and have had clean dressings applied, and have been discharged apparently cured. In six months, as a rule, they are as bad as ever. One case in particular, a young woman, with extensive ulceration on all four limbs, I saw first in 1920. She was given three injections of "606," and healed very slowly. On my return here in February, 1923, she was again a patient; as bad as ever. She received intravenous injections of Tartar Emetic, but showed little sign of improvement. When the new supply of Bis. Sod. Pot. Tartrate arrived in September, injections of it were given, to the amount of grs. 2 weekly. She has gradually improved in appearance, is getting quite plump, and her ulcers are almost healed.

For Tertiary Yaws, the treatment is, without a doubt, injection of the Bismuth salt.

In some districts of Tabora there are hundreds of natives affected by this disease, and, in the near future, the hospital will be inundated by these cases, especially when those discharged cured are seen by their friends.

A BRIEF REPORT ON TREATMENT OF YAWS BY B.S.P.T. INJECTIONS BY SUB-ASSISTANT SURGEON Y. MOOLE, MIKINDANI.

Fourteen cases of Yaws were treated since the supply of the drug was received, the cases were treated by intra-muscular injections at the out-patient department.

The dosage was 3 grains for an adult and 1½ for a child. This was varied only in two cases.

The number of injections given in each case was four at an interval of five days. In most of the cases, the Yaws disappeared after the second dose.

Toxic symptoms were produced in two cases—Stomatitis in one, in which it was not possible to trace whether this was due to the effect of the injection, or to the effect of the disease. In a second case, there was a moderate tender swelling left at the seat of injection, but this disappeared after a few days.

All the cases were cured with satisfactory results, but I am unable to express my opinion on the efficacy of this salt, as few cases were treated this year. Mercury and Pot. iodide mixture was daily given in each case.

It is intended to give an extended trial of this drug in the next year.

CASE OF CONGENITAL DEFECT OF THE URETHRA BY C. F. SHELTON, M.D. (LOND.), MEDICAL OFFICER, ARUSHA.

The patient, a Masai child, aged four months, was admitted to hospital with the following history :—

The child was stated to have been quite normal when born. Shortly after birth the mother noticed that the scrotum was beginning to swell and that urine was being passed naturally only at irregular and increasing intervals. Pressure on the scrotal swelling caused urine to flow from the penis—with disappearance of the tumour. For the past month or two it had been increasingly difficult to squeeze out urine, and pressure had not been followed by complete subsidence of the scrotal swelling as formerly. On examination :—

The child was fat and in good condition. A large cystic swelling was found occupying the scrotum, which measured 4 by 3 inches. There was no communication with the abdomen through the inguinal canals, the testicles were to be felt in the posterior part of the scrotum, and the tumour was translucent to light. The glans and body of the penis were almost completely obliterated in the scrotal swelling (similar to the appearance met with in old-standing hydroceles). Pressure on the scrotum caused clear urine to flow from under the prepuce, but without complete disappearance of the tumour. With some difficulty I found the urethral orifice and passed a fine silver catheter. After passage of the instrument for about 1¼ inches, urine began to flow, but I found it quite impossible to push the point of the catheter under the pubic arch into the bladder. After evacuation of the urine, the point of the catheter was felt in the perineum in contact with the posterior scrotal wall and between the testicles. The urine was quite normal.

The child was kept under observation in hospital for five days prior to operation. During this time it became increasingly difficult to empty the scrotum of urine by pressure, and for the last two days a catheter was passed twice daily.

Operation on 13th June, 1923. Anæsthetic Chloroform administered on a Single Layer of Lint.

Under anæsthesia a silver catheter was passed into the bladder with some difficulty, and a little clear urine drawn off. Catheter left in position and a longitudinal incision made through the median raphe of the scrotum. On cutting through the skin and integuments, I opened into a sacculus contained in the middle of the scrotum. The sides of the incision were held aside with Kocher's forceps and the cavity explored. A few small phosphatic concretions were found on the sac wall, which appeared to be lined with stratified epithelium; the testicles were enclosed each in their own tunica, *i.e.*, not free in the sacculus. On further inspection, I found a longitudinal defect in the floor of the membranous urethra, $\frac{1}{4}$ inch in length by $\frac{1}{8}$ to $\frac{1}{10}$ inch in breadth and situated just behind the bulb, the above gap opening into the scrotal pouch. There was no sign of old trauma, no sign of any extravasation of urine outside the sac. I think this child had a congenital defect in the urethra which communicated with a pouch in the scrotum, also congenital in origin. As the child became older, this pouch gradually became more and more distended with urine. I believe the above abnormality to be a rare one.

I was proceeding to undercut and pare the edges of the gap with a view to suture, when the child suddenly collapsed. Artificial respiration, followed by cardiac massage (by way of a hasty L. Rectus Incision) was done, but with no success. I did not press the matter of a P.M. with the parents, but examination of heart, lungs and abdomen made previously to operation had shown no signs of disease.

Note by Principal Medical Officer.—From the works available in the library, I gather that the form of defect with pouch reported by Dr. Shelton has not been described except immediately behind the glans (White and Martens Genito Urinary Surgery, 11th Edition) so that, if there was no indication of hypospadias having existed and the external opening having become closed by some means, the case appears to be a most unusual one.—*J.B.D.*

SOME INTERESTING CASES REPORTED BY G. A. WILLIAMS, B.A. (LOND.), M.R.C.S. (ENGL.), L.R.C.P. (LOND.), MEDICAL OFFICER, BUKOBA.

General Paralysis of the Insane in Natives.

I had been given to understand, before I visited East Africa first in 1916, that General Paresis (or G.P.I.) was extremely rare, if not non-existent in the natives.

During my service with the King's African Rifles, I saw two cases, which I considered quite definite examples, but I had no opportunity of long observation of them.

At Bukoba I have seen three cases, two of which I consider undoubted examples, and one in which the man has been regarded as an Epileptic, but which I suspect to be G.P.I. I will describe one of them.

He was a man of thirty odd, and a native Chief, a sort of Sub-Sultan. Up to quite recently there had been nothing abnormal. A few months before I saw him, he had suddenly changed, and from being an intelligent man became silly and irresponsible, and after a seizure, had broken down altogether, and he was sent in to me at Bukoba.

When I saw him he walked with hesitation and a certain amount of Ataxia. In appearance he looked silly and childish and apprehensive, and his face had a greasy, smooth expressionless appearance. He had the typical lalling speech, dropped syllables, and floundered hopelessly over some test words. He wrote a very shaky hand, which tailed off into undecipherable characters after a few words, and, of the words he wrote, he dropped letters and syllables.

There was a history of Syphilis and I was also told that one of his sons, aged about ten, had had seizures recently. There was marked tremor of his facial muscles, especially about the mouth, and his tongue was also tremulous on protrusion. His eyes showed inequality and irregularity of outline of the pupils.

His knee jerks were much increased, on the right side almost to Clonus. He was given three injections of Neokharsivan (914), and fairly heavy doses of mercury, plus Pot. Iodide, and he gradually improved. After three months most of the symptoms improved, and he now has enjoyed a remission of four or five months.

Of the second case there is little to say, except that he improved a good deal under treatment while in hospital, but he came to see us again about a month ago and seems to be going back.

The third, the doubtful one, is interesting, in as much as a son of his, a school boy in his early teens, had a series of seizures while at school in Bukoba, and I had him under direct observation for a few days: not knowing the father's history at the time, I suspected a case of juvenile G.P.I., and later enquiries as to his family history revealed the fact that the father was regarded as an epileptic. I have seen his father several times, and I am inclined to favour the diagnosis of General Paresis rather than Epilepsy.

These cases seem to me of special interest now, seeing that so much is being made at present of the reported cure of G.P.I. by inducing Malaria.

It makes one ask, does Malaria account for the rarity of G.P.I. in East Africa? Also, it makes one regret that the seeming ease with which the super-imposed Malaria can be cured, has not been attained locally.

Ascaris Lumbricoides in an Inguinal Abscess.

A native man in the prime of life was brought to hospital on 23rd October, 1923. He gave a history of having been ill for about ten days. His illness began with severe pain in the lower epigastric region. From there it spread down to the lower abdomen, and finally was confined to the right side only. The pains became severe, with exacerbations, and, as he described it, he was often doubled up with pain. He said he had had fever, had vomited several times, and had been confined to bed for the past four days and was constipated the whole time. At this time he noticed a swelling just above his right inguinal region, and which became very tender, and gradually increased till about the size and shape of a goose's egg and lying with its long axis parallel to the inguinal fold. He had passed a small constipated stool a day or two before being brought to hospital. Till then, with the exception of constipation, he had always been healthy. On examination, an abscess of sorts was diagnosed and it was incised under chloroform. Characteristically stinking b. coli communis pus was evacuated to the extent of about 12 oz. The abscess cavity was not explored, and drainage was allowed for. Excellent progress was made, the man soon improved in health, and the wound healed up rapidly, except for one spot, which seemed very obstinate, and from this a thin watery discharge continued to discharge. On the 4th November, 1923, the dresser thought he saw something moving inside this hole, and he grabbed it with a forceps and withdrew a fine example of Ascaris Lumbricoides about seven inches long. After this the sinus healed rapidly and the man was discharged cured. I suggest the diagnosis of a retroperitoneal appendix abscess, which had tracked down to this region.

Sarcoma of the Lower Arm in a Native Woman.

1. A young native woman of about eighteen came to hospital in October, 1922, with a large tumour on the flexor aspect of the left lower arm. It extended from the wrist up to the elbow, the skin was broken down and there was a stinking discharge.

2. I diagnosed a Sarcoma, and advised amputation of the arm, but her husband would not consent to it on any account, although I assured him it would return again if removed.

3. So against my better judgment I removed the growth. It was an extremely difficult dissection, and I could not quite make out the structures which were involved. It was adherent below to the anterior annular ligament and above to the bicipital fascia and part of the superficial flexor muscles lay over it.

4. The wound healed fairly well with an ugly scar, and she had good use of her hand, and both she and her husband were very glad they had refused operation.

5. This year, however, in the month of June, she returned with a fungating and stinking mass at the site of the previous growth, and was quite ready for operation.

6. I amputated at the junction of the middle and lower thirds of the humerus and the wound healed by first intention.

7. The patient, who was in a very poor condition on admission, rapidly put on weight, and left hospital in excellent condition, and has since been to visit us several times, and we have heard of no further developments.

8. She had no involvement of axillary glands.

9. I propose sending the tumour and the amputated arm to Dar-es-Salaam.

Two Cases of Purpura—Simplex and Hæmorrhagica.

Case No. 1.—Purpura Simplex.

This occurred in a young native woman of about seventeen years. She came to hospital with blood-filled bullæ scattered sparingly all over her body, and she complained of some hæmorrhage from the gums, but she had no bullæ in the mouth.

She had scratched one or two of the bullæ so as to make them bleed and they had bled very freely.

She did not feel ill in any way, and came only because of the hæmorrhage.

I made a thorough overhaul of her, but failed to find any signs of disease.

I gave her a mixture containing Iron, Strychnine, and Arsenic, and all the symptoms disappeared rapidly.

Case No. 2.—Purpura hæmorrhagica.

Just after the above patient had ceased to attend, there came a young native man about twenty-two perhaps, with blood-filled bullæ scattered fairly plentifully all over his body, in his mouth, on tongue, and buccal mucous membranes, and giving a history, also, of having passed a fair quantity of blood per rectum. He was admitted to hospital and remained over two months, during which period he had several severe bleedings from mouth, nose and rectum.

No other signs of disease were discovered by us, and his history was negative. He came from a different part of the district from the other patient and knew nothing of her. He was treated with Iron, Arsenic, Strychnine, and full doses of Ergot were given at the time of the bleeding. No other symptoms appeared.

He became weak and anæmic, but was eventually discharged convalescent.

CASE OF MULTIPLE TUMOURS OF BONE, BY JAMES H. THOMSON, M.D. (ABERD.), D.T.M., MEDICAL OFFICER, MWANZA.

Patient, a young native woman, was admitted into hospital last November. As will be seen in the accompanying photographs, she had two large tumours on her back. Those tumours were attached to the anterior surface of the lower end of the scapula on each side. At the spine there was distinct demarcation between the two. They were of very hard, bony consistency, smooth, and not attached except as above. The skin was freely moveable, and one could get a hand underneath, and lift them up. At the lower end and lower inner surface of the tumour on the right, which was the larger one, could be felt two hard irregular lumps, about the size of a closed fist, and more of the consistency of cartilage than of bone. On both sides the tumours were encroaching on the front of the chest, the tumour on the right having its edge, thin, free, hard, and slightly nodular, right under the nipple line.

Besides those two tumours, both patellæ were very much increased in size, they felt just like ordinary patellæ, with the exception of their sizes. To the lower and outer surface of the shaft of the left humerus, was attached another hard, bony growth, not interfering with the joint. It was difficult to get a history, but these growths apparently started in childhood, gradually increasing in size. The only thing she complained of was the weight of the tumours on her back. Since coming here I have seen one case in a male native of a similar growth at the elbow.

CASE OF FACIAL WOUND, BY J. M. SEMPLE, B. CH., M.B. (DUB.), B.A.O. AND L.M. (ROT.), MEDICAL OFFICER IN CHARGE, SEWA HADJI HOSPITAL, DAR-ES-SALAAM.

History.—A male child was brought to hospital having had his face wounded with an axe or panga three or four days previously.

Examination.—The child was about three years old and well nourished. The wound was on the left side and was in a very septic state. It was about three inches long and about one and a half inches wide at the widest part, and extended from a point about half an inch above the posterior end of the zygomatic arch downwards and forwards to the malar eminence, and thence downwards and backwards to a point over the root of the last molar tooth. The lateral aspect of the zygomatic bone was exposed throughout its whole length and below this the masseter muscle, the parotid duct (which was severed), and the tissues of the cheek, with the exception of the buccal mucus membrane, were involved. The facial and temporal arteries were found uninjured in the flap of tissues lifted up by the weapon which caused the wound.

Treatment.—This was at first confined to cleaning the wound and promoting a sufficiently healthy condition of the tissues to enable an operation to be performed for the closure of the wound and restoration of the facial contour.

Operation.—General anaesthesia with chloroform was used, but on account of the position of the wound, the question of asepsis was somewhat difficult. This difficulty was, however, countered by suspending a sterile towel from the electric light fixture by means of two strings ending in hooks, the lower edge of the towel being clipped to the face by means of two or three small sterile towel clips. (The small punctures made by these clips were afterwards touched with BIPP and caused no trouble).

The sides of the wound were then pared and shaped with a sharp scalpel and the deeper tissues freed from the underlying bone where they had become adherent.

The cut ends of the parotid duct were partially approximated by means of a loop of fine catgut passed through a wall of each, a round needle was then passed into the lumen of each portion and the cut ends joined together by tying the loop of catgut. Two more fine sutures were then passed at equal distances round the walls of the duct, and the needle removed from the lumen of the duct by pushing the point through the wall.

Little difficulty was experienced in drawing the shaped edges of the wound together by means of three buried catgut sutures and skin sutures of fine silk. The line of sutures was wiped with BIPP.

Healing was by first intention and only a thin linear scar remained to mark the site of the wound.

The child has been seen on one or two occasions since his discharge from hospital, and except for a very slight wrinkling at the outer angle of the eye (similar in appearance to "crow's feet"), there are no signs of contraction due to scar tissue.

Photographs were taken, but, unfortunately, were failures.

Sketches are attached, but give but a poor idea of the size and extent of the wound.

CASE OF CARCINOMA OF THE PYLORUS IN AN AFRICAN NATIVE, BY C. F. SHELTON, M.D. (LOND.), MEDICAL OFFICER, ARUSHA.

Deceased was a male Wa-Arusha native, aged about twenty-five. History of pain and indigestion for about two years?

When first seen had a definite moveable mass in the epigastrium. Operation showed an extensive inoperable growth of lesser curvature of stomach extending on to pylorus and a few secondary nodules on the visceral peritoneum. P.M. ten weeks later showed whole lesser curvature massively infiltrated with what appears to be a new growth. No secondary nodules in liver. Secy. nodules on peritoneum and great omentum.

Specimens from the stomach wall and from a secondary nodule in the great omentum were sent to the Bacteriological Laboratory, Dar-es-Salaam, in December, for histological examination. Report not available yet. (This specimen, unfortunately, was not received).

LIVER ABSCESS IN A NATIVE OF UGANDA: OPERATION, RECOVERY, BY C. F. SHELTON, M.D. (LOND.), M.O., ARUSHA.

Patient, a K.A.R. askari, a native of Uganda and aged about twenty-six, was admitted to hospital on 8th March, 1923, complaining of severe pain in the right side over the base of the lung, worse on deep inspiration. T. 100°; coarse friction over right base behind, below level of the seventh rib, and in the axilla. Spleen and liver not enlarged to ordinary clinical examination.

Previous History.—Had always enjoyed good health except for an occasional attack of "fever." No history in any way suggestive of Dysentery.

On 15th March, 1923, I found definite tenderness over the liver, most marked on firm percussion over the eighth and ninth intercostal spaces in the mid-axillary line. Patient also stated that the pain in the side had been much worse for the last two or three days. Liver edge not felt per abdomen, but there was definite tenderness and rigidity over the right hypochondrium.

Leucocytes 17,000 per c.mm. Diagnosis of Amœbic Hepatitis.

Temperature since admission had been running a very irregular course, varying from 97.2° F. to 101° F., and always higher in the evening than in the morning.

Between 15th March, 1923, and 21st April, 1923, patient received two courses of emetine—given hypodermically, in gr. 1 doses daily—one of twelve grains (between 15th March, 1923, and 26th March, 1923) and one of ten grains (between 12th April, 1923, and 21st April, 1923). Each time the symptoms improved slightly during the course, only to return as soon as the drug was stopped. At this time the patient absolutely refused to have an anæsthetic for the purpose of liver puncture.

On 30th April, 1923, the man had a very severe attack of pain in the right side, accompanied by acute tenderness over the liver, vomiting, and rigidity over the whole upper part of the abdomen. The pulse was 100 to 110, of good volume and tension.

Consent to operation was now given, but, at the very last moment, the patient refused (mainly, I think, due to the fact that the pain was temporarily much improved after a full injection of morphia). A third course of emetine was then given; patient receiving 10 grains between 30th March, 1923, and 9th April, 1923. This time the signs and symptoms cleared up with surprising rapidity, and patient was discharged to light duty on 13th May, 1923, as he "felt quite well now."

Note on discharge.—"General condition, fair; pulse 80, at rest; no signs of enlarge- "ment of liver except for slight diminution of resonance or percussion and breath sounds over "right base behind."

Re-admitted on 7th July, 1923, for return of his old symptoms. Stated he had been fairly well in the interval, except for slight attacks of pain over the liver and for shortness of breath on exertion. On examination he was now found to have definite enlargement of the liver in both an upward and downward direction. Operation still refused, so a further 10 grain course of emetine was administered, but without any good effect on the signs and symptoms. The temperature at this time varied from 98.2° F. to 102.4° F.

Between the date of re-admission and the 2nd October, 1923, the liver steadily increased in size, while the general condition as steadily deteriorated.

Operation was consented to on 2nd October, 1923. At this time the liver was enormously enlarged. Per abdomen, its edge extended down to within 1 inch of the umbilicus, the whole of the right side of the chest was bulging and without movement on respiration. Behind, there was absolute dullness, together with loss of breath sounds, vocal fremitus and vocal resonance below the level of the sixth rib, and, in the axilla, the same signs were present below the level of the fifth rib. The cardiac impulse was displaced 1½ inches outside the nipple line, and the man looked very ill and anæmic.

Operation on 2nd October, 1923.—The abdominal surface of the liver was exposed through a longitudinal right rectus incision. On puncturing the liver with a small trocar, pus was struck at a distance of about 3 inches from the surface; the trocar having been pushed in an upward and backward direction. After the abscess had been partly emptied the track of the puncture was enlarged with forceps and a large size drainage tube inserted into the cavity. Enlargement of the track and insertion of the tube led to very free bleeding from the congested liver tissue. At the time I noticed that pus was not flowing very freely from the tube, and felt rather uneasy as to whether the latter had been properly introduced into the bottom of the abscess cavity. The general condition of the patient was now so bad that I did not like to explore any further, and accordingly completed the operation as quickly as possible. Thirty-five ozs. of typical amœbic abscess pus were evacuated at the operation.

N.B.—I was compelled to operate by the open method as at that time I had no suitable aspirating instruments available.

A further course of 10 grains of Emetine was now given. For a time the general condition improved, although drainage from the first was unsatisfactory. At the end of five days nothing was coming out of the drainage tube, so this was removed. After a short improvement the symptoms began to return, and the liver to show signs of enlarging once more.

On the 7th November, 1923, after repeated persuasion, consent was at last obtained to a second operation. The liver was now enlarged down to within 2 inches of the umbilicus; behind, the base of the lung was absolutely dull from the angle of the scapula downwards.

A small incision was made through the old scar over the right rectus, and the liver explored by Manson's method. A total amount of 40 ozs. of thick pus was evacuated at the operation, Manson's drainage tube being left in the abscess cavity.

This time, drainage was free and in every way satisfactory, the general condition improved steadily, and the discharge gradually diminished. A final course of 10 grains of Emetine was given.

Ten days after operation I noticed that there was free fluid in the abdomen. This increased for a time, and then began to diminish—never at any time being sufficient to call for paracentesis.

Condition at the present time (*10th January*, 1924).—General condition good. The scar on the abdomen is healed, but a small ventral hernia is present. Liver edge not palpable per abdomen. Slight impairment of percussion note, vocal fremitus and vocal resonance over the right base, below the angle of the scapular. Breath sounds well heard over the base of the right lung. Cardiac impulse in fifth space, just internal to the nipple line. There is still a very small amount of free fluid in the abdomen.

In looking back on this case I should like to raise the following points:—

1. The reason for the inefficacy of the first two courses of Emetine. Was pus already present in the liver at this time?
2. The explanation of the attack of pain on the 30th April, 1923, with the accompanying rigidity of the upper part of the abdomen. At the time I thought that an abscess of the liver was leaking into the abdominal cavity and causing the acute symptoms.
3. The reason for the apparent (though temporary) efficacy of the third cause of Emetine.
4. The explanation of the failure of the first operation, *i.e.*, was this due to bad technique on my part in failing to drain the abscess cavity properly or was the abscess bilocular, and consequently one loculus remained untouched.
5. The very large amount of Emetine which was given without any recognisable toxic symptoms.

SPLENIC ENLARGEMENT IN ADULT NATIVES.

REPORT BY DR. J. G. MCNAUGHTON, M.D., M.R.C.P. (EDIN.), ACTING SENIOR MEDICAL OFFICER, TABORA.

I have examined the following numbers of casual natives, picked at random, with the undermentioned results:—

Persons examined	Men, 2,597.	Women, 158.
Spleen not enlarged	1,643 (% 63.27)	96 (% 60.76)
Spleen palpable	619	57
Spleen 1 inch below costal margin ..	244	4
Spleen 2 inches below costal margin ..	84	0
Spleen at or below umbilicus	7	1

TANGANYIKA TERRITORY.

VII. *REPORT OF THE DAR-ES-SALAAM LABORATORY, FOR THE YEAR 1923,*

By G. G. Butler, B.A., M.D., B.C., etc.

A. Introductory.

This report covers the period January to December, 1923, which is the third completed year's work of the Laboratory. This period has been sorely broken up with the result that much of the work has become disjointed and routine work only been possible.

1. *Staff.*—Dr. Butler was in charge of the Laboratory for the first six months and then was succeeded by Dr. Haworth for the latter six months, and this report is written by the former under the difficulty of not having been in touch with the Laboratory for some time. Mr. Hammond, Laboratory Assistant, proceeded on leave in November and was relieved by Mr. Irvine, a newly arrived Sub-Assistant Surgeon who has shown considerable aptitude to the work and will be able to take on the duties of Laboratory Assistant at any time should shortages of staff occur.

Mr. Hammond's work with the calf lymph production is an important and valuable part of our routine and that there has been no hitch in its manufacture is largely due to his methodical work.

The native staff has remained the same as in the previous years, and they could be replaced only with considerable difficulty.

2. *Buildings.*—These remain as previously, though minor repairs have been made.

Plans for an extension for the building have been submitted. Extension is necessary owing to the variety of work that has to be done and if we obtain the Assistant Bacteriologist already sanctioned, extra room will become still more imperative.

3. *Equipment.*—The usual minor additions have been made during the year. The electrically driven lymph-grinding machine has worked satisfactorily during the year and has saved much time.

Ice is bought locally and costs roughly £100 a year. An electrically worked refrigerator, if applicable to the tropics, will be asked for during the coming year, and though the initial outlay will be large, there should be considerable saving eventually, and advantages of fairly dry storage will be obtained. The importance of an efficient refrigerator is necessary, owing to the stock of calf lymph that has to be kept on hand.

4. *Library.*—Periodicals are received as in previous years and the following books added to the library from the library attached to the Principal Medical Officer's office. :—

Quantitative Analysis	Clowes and Coleman.
Food and Drugs	Parry.
Public Health Laboratory Work ..	Kenwood.

5. *Experimental Animals* :—

(*a*) *Monkeys.*—These are required to keep up the virulence of our calf lymph and are not kept for long periods.

(*b*) *Guinea Pigs.*—These do well, but scarcely have bred fast enough to keep up our requirements in Complement, owing to the great expanse in Complement Fixation Work that has become necessary.

6. *Revenue.*—Calf lymph to the value of £320 has been sold to the Zanzibar Government from whom we have a request for supplies to be delivered monthly.

B. GENERAL EXAMINATIONS.

I. *Blood* :—

(1) *Blood Films.*—This is a routine matter and is carried out by the same technique as in previous years.

A total of 3,169 slides have been received, this number is more than twice the total received during 1922.

The source of these slides is as follows :—

European Hosp.	Native Hosp.	Other Med. Officers	Out-Stations.
680	2,379	60	40

Excluding the films that were impossible to examine for some reason there remain 3,128 which were reported upon as detailed below :—

(*a*) *Blood Parasites in Europeans.*—A total of 428 were examined with the following results :—

Sub-tertian Malaria	107
Benign Tertian Malaria	2
Crescents	6
Spirillum duttoni	7
Microfilaria	1
Negative	305

(*b*) *Blood Parasites in Asiatics.*—A total of 672 were examined with the following results :—

Sub-tertian Malaria	201
Benign Tertian	22
Crescents	3
Spirillum duttoni	10
Microfilaria	4
Negative	432

(*c*) *Blood Parasites in Natives.*—These figures include those of the King's African Rifles.

A total of 2,038 slides were examined with the following results :—

Sub-tertian Malaria	412
Benign Tertian Malaria	15
Crescents	16
Spirillum duttoni	26
Microfilaria	62
Negative	1,487

Comparing these results as percentages, we find the type of Malaria distributed as follows, in approximate figures :—

	EUROPEANS.	ASIATICS.	NATIVES.
Sub-tertian	93.4 %	88.9 %	93 %
Benign Tertian	1.4 %	9.7 %	3.3 %
Crescents	5.2 %	1.3 %	3.6 %

The highest percentage incidence of Crescents appears in Europeans and the highest monthly incidence which occurs in June follows shortly after the highest monthly occurrence of Malaria.

Further observations on Malaria will be found under the heading "Malaria and Meteorology."

(*d*) *Relapsing Fever.*—There is very little to note under this heading : there has been an increase again during the year over that of 1921 and 1922 : 53 cases having been recorded, of which, however, only 7 occurred amongst Europeans. As in 1922, cases amongst the local population have occurred.

(*e*) *Microfilaria.*—No special investigation has been made for these parasites. A total of 69 have been met with in the routine examination of blood films which gives a percentage of 2.2 per cent., including all nationalities, though the frequency of infection amongst Europeans is very low.

Sheathed and unsheathed varieties occur, though the latter appear to have only been noted during the rainy season from April to June.

There is a sharp rise in the findings during April, when the rainfall of the year was at its height.

These findings have been made in the day blood of patients, and no attempt yet has been made to estimate the infection in night bloods.

I am unable yet to state with certainty the variety of microfilaria that are met with in Dar-es-Salaam.

(*f*) *Differential Leucocyte Counts.*—There is very little demand for this investigation and only thirty-two Counts have been made, all on Europeans.

Nothing of particular interest was revealed: normal in eleven; polymorph leucocytosis in fifteen, which includes three cases in the later stages of Blackwater Fever.

Five cases showed a large mononuclear increase, and one a well-marked Eosinophilia.

One case gave a typical picture of pernicious anæmia.

(*g*) *Blood Parasites of Animals.*—Owing to the outbreak of Trypanosomiasis in the Mwanza area, it was thought advisable that a series of animals should be examined for similar parasites, and a batch of films was obtained through the Game Department. Owing to the difficulties of obtaining films in the field by unpractised hands and often due to the fact that the animal may have been dead some time, the results have not been too satisfactory. Probably the only satisfactory method would be for the Protozoologist to do the hunting and trapping himself.

The following animals were examined:—

Monkey	Cercopithecus pygerythrus	One specimen.
Baboon	Papio langheldi	Three specimens.
Lemur	Galago sp.	One specimen.
Bat	Chærophon	Seven specimens.
,,	Nycteris sp.	Six specimens.
Fox	Otocyon virgatus	One specimen.
Civet	Viverra civetta	Two specimens.
Mongoose	Herpestes	,, ,,
,,	Helogale	,, ,,
Serval	Felis capensis	,, ,,
Topi	Damaliscus korrigum	,, ,,
Dik-Dik	Madoqua	One specimen.
Impalla	Æpyceros melampus	,, ,,
Roan	Hippotragus equinus	Three specimens.
Bushbuck	Tragelephus scriptus	One specimen.
Warthog	Phacochœrus æthiopicus	Four specimens.
Zebra	Equus quagga	One specimen.
Hyrax	Procavia brucei	Four specimens.
,,	Procavia matschei	Eleven specimens.
Rat	Taterona	Two specimens.
,,	Epimys	Five specimens.
Hare	Lepus sp.	One specimen.
Porcupine	Hystrix sp.	Four specimens.
Lizard	Agama sp.	Two specimens.
,,	Varamus niloticus	One specimen.

The majority of the slides were negative, but the following parasites were found:—

Monkey.—Markedly pigmented Malaria like parasite which is commonly met with in these animals.

Baboon.—One showed parasites similar to those just mentioned.

Bat Nycteris.—Four of the specimens showed Trypanosomes which varied considerably in form and had no free flagellum.

Fox.—This animal showed unsheathed microfilaria of small size.

Roan.—One of the specimens showed microfilaria of unsheathed type.

Lizard. Agama.—One specimen showed unsheathed microfilaria.

(2) *Agglutinations.*—There has not been a great demand for these, probably depending on the relative infrequency of the Enteric group.

A total of thirty were performed, seventeen in Europeans and the remainder divided between the Asiatic and Native patients. Out of this total, twelve gave what may be considered as positive results.

Typhoid: Nine positive cases, none of which were found amongst natives.

Paratyphoid A.: One positive case only in a native.

Paratyphoid B.: One positive case was found in a European.

Paratyphoid C.: No cases were found.

Malta Fever: One positive case in a native from the Arusha district. This diagnosis should be described rather more fully for, owing to the culture of M. melitensis having died out, the agglutination with B. abortus was performed and an agglutination at 1 in 320, with negative controls, suggested the diagnosis which I understand was clinched clinically.

(3) *Blood Cultures.*—The usual Ox bile medium has been employed as the clinical diagnosis suggested the Enteric group.

A total of seventeen were performed with four positive results—all Bacillus typhosus of standard type. These positive cases occurred one each amongst Asiatic and Natives and two amongst Europeans.

(4) *Wasserman Re-actions and Flocculation Tests.*—There has been a great increase in this work, largely owing to the impetus given to the treatment of Syphilis and Yaws by Bismuth Sodium Potassium Tartrate in natives. The full technique recommended by the Medical Research Council is employed.

Europeans.—Twenty-nine sera were examined with seven positive results = approximately 24 per cent.

Asiatic.—Only twelve sera were examined with a total of six positive = 50 per cent.

Natives.—One hundred and seventy-six sera were examined with 124 definitely positive results = 70 per cent.

As the first two groups are usually examined to confirm or clinch a diagnosis already suspected, the percentage does not appear high.

In the native group, as the examinations have quite often been performed as a routine measure and the individuals have not necessarily had obvious signs and the percentage of 70 per cent. suggests that very few of the population frequenting the hospital appear to have escaped Yaws or Syphilis, though I think the former is by far the main factor.

Flocculation Tests.—A considerable number of Kahn tests have been performed and they will be examined in more detail under special investigations. The main results obtained are as follows:—

Europeans.—Thirty-two sera have been examined with thirteen positive results = 40.6 per cent.

Asiatics.—Twenty-one only have been examined and yielded ten positive results = 48 per cent. approximately.

Natives.—Two hundred and seventy-four sera gave one hundred and ninety-three positives = 70 per cent.

The latter two groups have given suggestively close results with the Wasserman tests.

B. II. EXAMINATION OF FÆCES.

Four hundred and fifty-three separate examinations have been made, but a certain number of patients have been found with more than one infection, so that the figures do not quite correspond when percentages are given. Three hundred and ninety-eight have been examined microscopically, and fifty bacteriologically.

(*a*) *Microscopical.*—Naturally this forms the biggest group.

Europeans.—Seventy-four examinations were made and fifty-three of these revealed nothing to account for any abnormal condition.

Entamœba histolytica or their cysts were found on ten occasions, that is, 13.5 per cent.

The remaining eleven cases showed flagellates in seven and the following ova. Ankylostome in one, Ascaris in one, and Tænia in two, one of the latter occurring in an infant a few months old.

Asiatics.—Only thirteen were examined microscopically and all yielded negative results.

Natives.—Three hundred and eleven patients were examined with the following results :—

Flagellates	23 =	7·4 %
Entamœba Histolytica	11 =	3·5 %
Ascaris	32 =	10.3 %
Ankylostomes	136 =	43·7 %
Tænia..	17 =	5·4 %
Bilharzia	3 =	·9 %

The figures for ankylostomes are of interest in that a fairly high figure has been obtained on a single film examination, suggesting that with a concentration method probably double that number are infected. The small proportion of cases of Ankylostomiasis that are met with is very suggestive when taken into conjunction with these ankylostome figures.

The Dysentery-like stool of a young female gorilla was examined and showed many amœba of the histolytica type and eventually killed the animal in spite of Emetin treatment, an interesting fact in view of the similar results obtained in experiment Dysentery of kittens.

(*b*) *Bacteriological Examinations* of Fæces have been carried out on fifty-five cases, including all nationalities, and they may be considered together.

The cases divide themselves into groups as follows :—

Clinically Bacillary Dysentery. Thirty-six fall into this group, of which ten yielded the Flexner-Y type of Dysentery organism, that is, approximately 27 per cent.

This group, when plotted out into monthly incidence, follows almost exactly the rain curve, during which time the fly population is also markedly increased. A similar comparison made with the amœbic Dysentery cases shows no such parallel, the sixteen cases being spread over nine months of the year.

The remaining samples were examined for Enteric group in nine instances and all proved negative.

Ten cases of Diarrhœa were examined and in four, Morgans Bacillus No. 1 was recovered—these latter being obtained from an outbreak of Diarrhœa in the Morogoro Gaol.

B. III. *Urine Examinations* :—

(*a*) General examinations have been made on one hundred and five specimens, with results indicating nothing abnormal in fifty-seven cases. Six cases showed Oxyhæmoglobin, four in Europeans and two in Asiatics, but no case occurred amongst natives.

Signs suggestive of Nephritis were found in nine individuals, but none of these were amongst natives.

One case of Vesical Calculus was met with.

An interesting case of Acetonuria was found in an emaciated European lady without any indication as to the cause, this cleared up at once on a diet increase.

The remaining cases were of no particular interest. Urinary Bilharzia, of course, is very common amongst natives.

(*b*) Bacteriological examinations of urine have not been numerous, only six samples have been submitted. Three were examined for the Enteric group with negative results, one was specially examined for the coli group and similarly proved negative, as did the final case which was examined for Tubercle bacilli.

B. IV. *Pus* :—

This examination usually resolves itself into an examination for the Gonococcus in urethral pus.

Seventeen Europeans were examined with eight positive results. Twenty-five Asiatics yielded nine positive slides and thirty natives yielded thirteen positive cases

One sample of pus from a periuterine abscess grew Staphyococcus aureus.

B. V. *Sputum* :—

The routine examination for Tubercle bacilli is the only procedure under this heading. Two hundred and six specimens were received, twenty-nine amongst Europeans, giving four positive cases. Forty-two samples from Asiatics gave three positive only, while out of one hundred and thirty-five natives there were twenty-nine positive, which is over 27 per cent. of the cases examined.

B. VI. *Scrapings from Ulcers and Sores.*

Only twenty-one samples were received, six from Europeans for search for the Spironema, and all proved negative.

The fifteen cases from natives were for examination for Leprosy and also proved negative in all except one case. An interesting series of scrapings from cases of rhinopharyngitis met with on the Anglo-Belgian Boundary Commission were sent down to be examined for Leishmann-Donovan bodies, and all proved negative and the cases most probably were Yaws.

B. VII. *Miscellaneous.*

(*a*) *Exudates.*—The Cerebrospinal fluid from an European case of Spirillum fever was examined on several occasions and no evidence of Spirilla was found.

The Cerebrospinal fluid of four native patients was submitted for examinations, the Meningococcus and Pneumococcus were found in one instance each, and the remaining two proved negative.

Pleural and Peritoneal exudates were examined on one occasion each for Tubercle bacilli and proved negative. Prostatic exudate was examined on three occasions and also proved negative.

(*b*) *Throat Examinations.*—Swabs were submitted on five occasions ; on two occasions for examination of Diphtheria and were negative, the other three proved to be infections with Vincent's organisms.

(*c*) *Nasal Examinations.*—These were made on twenty-one individuals suspected as lepers—it proved negative in nineteen and positive in two.

(*d*) *Skin and Hair Examinations.*—Seven individuals were examined for Tinea tonsurans, the one European proved negative while all six native children showed the presence of microsporon audouini.

(*e*) *Entomological.*—A few specimens of ticks were sent in for identification, and nearly all have proved to be Ornithodorus moubata and in no case have they been found infected.

Samples of Simulium, Glossina morsitans were sent down from the Anglo-Belgian Boundary Commission for identification.

A series of wild Culex collected from the same source were dissected and examined for Filaria, but all proved negative.

Some specimens of fleas proved to be Ctenocephalus felis.

(*f*) *Calculi.*—The urinary and biliary stones found in a cow were examined and found to be chiefly calcium carbonates.

C. Chemical Examinations.

(*a*) *Milk Analysis.*

I. *Tinned Milks.*—Twelve samples of tinned milk were examined as to fat content : eleven of these were condensed milks and their fat content varied from 6.6 per cent. to 10.8 per cent., all except two passing the Government standard of 9 per cent.

One sample of natural tinned milk gave 3 per cent. fat.

II. *Natural Milks.*—Owing to the constant suspicion of the addition of water to the milk sold in the township, an increasing number of examinations have been made.

Guaranteed samples of goats' and cows' milk were obtained for control purposes and the average fat content has proved to be cows 4. 63 per cent., goats 1.8 per cent., this was during August and has been higher during other months.

It is anticipated that there will be difficulty in the detection of abstractions of fat from additions of goats' milk rather than additions of water. Additions of water, as a rule, are so carelessly done that rapid detection is possible to all—in one case at least 50 per cent. added water was found.

Out of fourteen samples examined, six have proved to be unadulterated. six adulterated with water and two either had the fat abstracted or there had been addition of goats' milk.

(*b*) *Salt Deposits.*

Three samples were submitted and two proved to be 90 per cent. sodium chloride, while the third showed 80 per cent. of a mixture of Sodium and Potassium Carbonates.

(*c*) *Alcohol.*

An interesting sample of Banana spirit was sent in for estimation of alcohol and proved to contain nearly 23 per cent. of absolute alcohol.

D. MEDICOLEGAL.

(*a*) *Poisons.*—Owing to the general belief amongst natives that practically no death is natural, this branch of work is likely to increase and is very frequently a futile search, substances being assumed to be poisonous in order to explain the death.

The following cases have occurred :—

Feigned Suicides.—A bottle containing some whisky and a small packet of silver nitrate were left beside clothing on the seashore. No poisonous material was found in the whisky.

Abortifacients.—One sample of Bark examined revealed nothing that could be detected of this nature.

Murder.

(*a*) A vegetable powder given with food—no evidence of poison could be found.
(*b*) Stomach and contents of an alleged violent death showed no evidence of any poison.
(*c*) Stomach and contents of another such case also proved negative.
(*d*) Stomach and contents and the liver, together with some roots and pods were received and nothing poisonous could be detected in any of the specimens.
(*e*) A case of tobacco poisoning. This case seems to have been definitely proved.

The decoction showed the presence of tobacco and nicotine and apparently had been administered by mouth and per rectum. The stomach and intestine contents showed the presence of nicotine, while the liver and kidney proved negative.

(*b*) *Rape Cases.*—Two garments were examined for blood and spermatozoa and proved negative. Five specimens of vaginal discharge were examined for spermatozoa, and all proved negative, but gonococci were detected in two.

(*c*) *Weapons.*—Only one weapon in the form of a knife was sent for examination, and the alleged blood marks proved to be rust only.

(*d*) *Detection of Witches.*—Two samples of fluid with the alleged power to detect persons guilty of witchcraft were examined and appeared to be plain water.

E. WATER ANALYSIS.

(*a*) *Chemical Analysis.*—Twenty-two samples have been received and reported on. The majority naturally came from Dar-es-Salaam, the only out-stations sending samples have been one each from Lindi, Lushoto and Dodoma. The type of the waters examined were as follows and their result in general terms :—

Soda water, 1. Contaminated.

Wells water, 8. Four were unfit for domestic purposes, while the other four were suitable,

E. WATER ANALYSIS—*continued.*

Springs, 4. Three of which would make excellent supplies, the best of these came from Lushoto.

Mains, 5. All of these were passable. A large quantity of nitrites in one case was traceable to the iron piping. One sample was of great interest, owing to the chlorophyl containing organism which developed in the high level water tanks at Dar-es-Salaam and invaded the mains until the tanks were closed to sunlight.

Rain Water Tank, 1. One attached to Government House was found to be grossly contaminated and was emptied.

Bore holes, 3. Two samples from Dar-es-Salaam were good, but the third from Dodoma was quite unfit for consumption.

(*b*) *Bacteriological Examinations.*—Twelve samples were submitted; eight local samples, two from Dodoma and one each from Morogoro and Lushoto.

The results are tabulated as follows:—

Rainwater Tank, 1. This was from the same source as quoted above and was found to be grossly contaminated.

Soda waters, 5. The four supplied from local sources were good, but the sample from Morogoro was unfit for consumption.

Wells, 3. All three were from local sources and two were found to be contaminated.

Spring, 1. A sample from Lushoto which appeared to be good.

Water reservoirs, 2. Both of these were from Dodoma and were examined for B. typhosus group of organisms and found to be negative.

F. RAT EXAMINATIONS.

The daily routine has been carried out as for previous years. A total of 10,305 were received, 10,170 being classified as mus rattus and includes a certain number of mus alexandrinus: the remainder were mus decumanus.

A ten per cent. selection of the rats are examined by smears from the spleen and negative results for B. pestis have been obtained. A difficulty has arisen owing to the replacing of wire traps with the break-back variety resulting in many of the rodents arriving in a putrefactive condition and impossible to examine.

G.—METEOROLOGY.

(*a*) *Rainfall.*

	Total in Inches.	No. of days on which Rain fell.	Maximum on any one day Inches.
January	1·30	7	·1
February	·98	10	·22
March	1·91	11	1·02
April	9·54	18	2·148
May	2·66	8	1·66
June	·64	5	·24
July	1·55	6	·1
August	1·72	9	·55
September	·41	5	·22
October	·86	5	·29
November	·46	9	·19
December	3·18	10	1·15
	25·21	103	

The 1923 Rainfall was rather more than seven inches less than the previous year though the number of days on which rain fell is 103, one less only than in 1922.

(*b*) *Temperature.*

	Mean.	Highest Recorded.	Mean Maximum.	Lowest Recorded.	Mean Minimum.	Mean Humidity.	Mean 9 a.m. Humidity.	Mean 4 p.m. Humidity.
January	83·3	92·3	90·2	71·6	76·4	70·8	72·0	69·7
February	83·9	92·3	89·8	74·3	78·0	72·2	74·4	70·0
March ..	83·25	92·3	90·5	72·5	76·0	71·7	72·4	71·0
April ..	79·3	91·4	85·8	69·8	72·8	82·0	82·0	82·0
May ..	78·3	88·7	85·0	67·1	71·7	71·2	77·1	65·4
June ..	76·7	86·9	85·0	63·4	68·5	68·3	75·0	61·6
July ..	75·5	86·9	83·4	65·3	67·6	67·6	73·4	61·8
August	74·66	86·0	82·13	65·3	67·2	70·1	76·6	63·7
September	75·5	88·7	83·9	63·5	67·2	67·3	70·6	64·0
October	77·82	89·6	85·9	65·3	69·7	69·4	70·4	68·4
November	81·16	90·5	88·12	69·8	74·4	74·3	72·0	76·6
December	82·8	91·4	89·27	71·6	76·33	74·4	76·0	72·8

(*c*) *Malaria and Meteorology.*—It is convenient now to consider the curves for Malaria in conjunction with meteorological observations.

In the following charts there are represented the Malaria curves for three different nationalities and the flatter top of the curve in the relatively non-immune races is to be observed.

In association with these Malaria curves I have plotted the Rainfall, Mean Temperature and Humidity and the Anopheline larvæ finds.

The Anopheline larvæ curve and the Malaria curve of natives is identical, except it naturally anticipates the latter.

The mean Humidity and Temperature show no relation to the Malaria curve, though I still think the former is a main factor in the incidence of Malaria: it is hoped that in 1924 Humidity readings throughout the twenty-four hours will aid in elucidating the matter.

H. ANTIVARIOLOUS LYMPH MANUFACTURE.

This has now become a routine matter and the general technique has been carried out by Mr. Hammond during the first ten months and then taken over by Sub-Assistant Surgeon Mr. Irvine during the latter two months

Calf Stables.—These remain as they were and no additions have been made. There are many disadvantages in having the stables where they are behind the Laboratory and in close proximity to the European Hospital, but with the present small Laboratory staff it would be impossible to undertake elsewhere the manufacture of lymph and ensure a safe product.

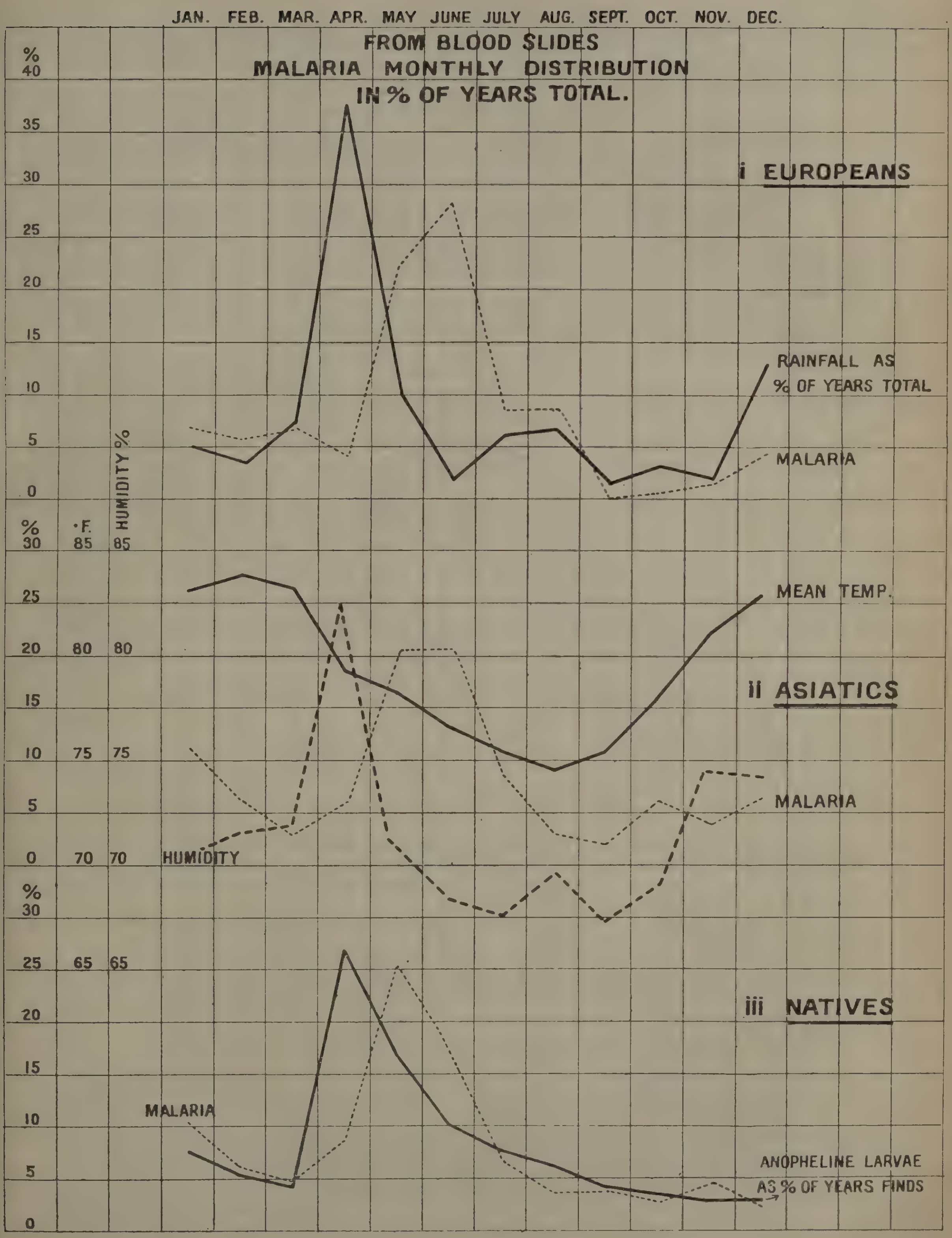
The Calves.—We still work in co-operation with the Veterinary Department who now have taken over complete charge of the vaccine herd and supply us with calves, two at a time, as we require them. The type of calf has not maintained quite the same standard and the supply of white heifers has not been as frequent as could be wished. The great difference in the take between light-coloured and black calves is quite remarkable. There have been no deaths among the calves and they have all taken when inoculated.

Eighty-two calves were inoculated during the year, varying from a maximum of ten a month to a minimum of two a month in October with an average of just under seven a month.

From these eighty-two calves over 510 grammes of vesicle pulp have been obtained, with an average of 6.2 grammes which is rather lower than the yield of 7.6 per calf in 1922. The average yield per calf in doses was 2,244.

It has been a matter of casual observation that the yield appears to be considerably better during the cooler months of the year (April-September), but at the same time those months are also conspicuous in yielding a much better type and more abundant fodder.

1923.


JAN.
FEB.
MAR.
APR.
MAY
JUNE
JULY
AUG.
SEPT.
OCT.
NOV.
DEC.
FROM BLOOD SLIDES
MALARIA MONTHLY DISTRIBUTION
IN % OF YEARS TOTAL.
%
40
35
30
25
20
15
10
5
0
i EUROPEANS
RAINFALL AS
% OF YEARS TOTAL
MALARIA
HUMIDITY %
%
30
25
20
15
10
5
0
°F.
85
80
75
70
65
85
80
75
70
65
MEAN TEMP.
ii ASIATICS
MALARIA
HUMIDITY
%
30
25
20
15
10
5
0
iii NATIVES
MALARIA
ANOPHELINE LARVAE
AS % OF YEARS FINDS

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The Lymph manufactured is still entirely the glycerinated variety and follows the Hendon method. The procedure of maintaining strict alternation between Calf and Monkey has kept the seed without any difficulty and with high virulence. The pedigree of the seed is kept in tree form and is quite an imposing one, showing its origin in 1921 from a Small-pox patient through the alternate hosts quoted above.

The procedure of manufacture has not been altered since first described in the 1921 report, except that the grinding machine is electrically driven.

The lymph is still stored in corked amber coloured glass phials holding just about 1½ ccs., which is sufficient for the inoculation of 100 individuals with three or four insertions. This lymph is kept as a routine for one month in an ice chest before issue is allowed.

The Yield.—During the year, 184,000 doses have been manufactured: the monthly output varying between 3,500 and 25,000, with a monthly average of over 15,000 doses. This has coped with the demand quite satisfactorily, and working at the average yield per calf there are facilities to increase the output to 250,000 doses with comparative ease. The capacity of the stables will not allow of an increase beyond 350,000 under any circumstances and should this likelihood arise, which would appear remote, arrangements would be necessary to manufacture lymph at another station.

Bacteriology.—All samples of lymph are stored at once in small phials containing 100 doses, corked and sealed with paraffin wax: in this state they are stored for a month in the ice chest and it is from one such tube that the bacteriology of the lymph is investigated. The common type of skin organism has been the only one met with in aerobic culture. Anærobic cultures have invariably been sterile.

Transport.—The original procedure of packing in crushed ice and sawdust in a wooden case is still in force, but in view of certain experiments, to be described shortly, it can have very little advantage if the destination is more than 24 or 36 hours away.

The experiment alluded to above was made with two lymph carrier boxes as advertised by Gallenkampf. These boxes are about 8 inches high by 4 inches broad each way and contains a silvered double layered glass container closed by a large cork and drops into a felt packing inside the box. The experiment was a simple one to determine how long the temperature of an ice mixture remained low and constant. The experiment was made in one case with the box open and a thermometer passed through the cork, while in the other the ice mixture was placed in the container, the box closed and allowed to stand on the Laboratory desk.

The experiment was performed during September when the average room temperature was between 24° and 26° C.

The accompanying table of readings will show that room temperature is reached in about 18 hours:—

Box A.—This box was kept open during the experiment though the felt lining was damped. The cork to the container was perforated by a thermometer so that the readings could be read without any interference with the box.

Box B.—The box was kept tightly closed except when the readings were taken. The felt was damped.

The readings were taken by rapidly removing the cork and replacing it with a duplicate cork through which a thermometer was passed:—

Date.	26th September.			27th September.			28th September.
Time	2 p.m.	4 p.m.	6 p.m.	8 a.m.	12 noon.	4 p.m.	9 a.m.
Room Temperature °C. ..	26	26	25	24	25·5	26	25
Box A	0	3	3	24	24·5	25·5	—
Box B	0	3	3	18	20	22	23·5

Results.—Out of the 184,000 doses made during the year, 2,500 were used up for seed purposes and 155,000 doses issued to stations, leaving a balance of nearly 30,000 as a stock to commence the year 1924.

This is a very big increase, in reality, over the 178,000 doses for 1922 as the volume considered necessary to vaccinate 100 individuals has been increased from 1 to 1½ ccs.

The following list gives the results from the different stations :—

Issued to.	Amount.	Amount accounted for in Reports.	Not seen again.	Positive.	Modified Takes.	Percentage Takes.	Percentage Positive.	Percentage Modified.	Percentage Failure.
Arusha ..	5,900	1,615	605	467	12	47·4	46·2	1.2	52·6
Bagamoyo ..	5,100	4,059	249	2,637	—	69·2	69·2	—	30·8
Bukoba ..	1,200	112	112	—	—	—	—	—	—
Dar-es-Salaam	1,700	—	—	—	—	—	—	—	—
Dodoma ..	7,100	6,912	390	5,987	—	90·4	90·4	—	9·6
Handeni ..	1,100	500	—	441	—	88·2	88·2	—	11·8
Iringa ..	6,300	5,150	360	2,589	1,171	78·6	54·0	24·6	21·4
Kasanga ..	1,300	300	—	118	—	39·3	39·3	—	60·7
Kilwa ..	7,500	3,606	549	2,501	—	81·0	81·0	—	19·0
Kilossa ..	1,200	1,200	67	599	285	78	52·8	25·2	22·0
Kigoma ..	1,400	538	56	193	—	40·0	40·0	—	60·0
Kondoa-Irangi	1,100	44	—	8	11	43·1	18·1	25·0	56·9
Lindi ..	7,300	3,455	2,195	626	151	61·8	49·8	12·0	38·2
Lushoto ..	2,200	2,067	323	1,152	317	84·2	66·1	18·1	15·8
Moshi ..	11,300	1,890	200	400	—	23·7	23·7	—	76·3
Masoko ..	11,100	—	—	—	—	—	—	—	—
Mahenge ..	2,200	2,118	—	1,227	19	58·8	58·0	0·8	41·2
Mafia ..	1,200	—	—	—	—	—	—	—	—
Mikindani ..	1,200	726	113	436	27	75·5	71·1	4·4	24·5
Mbulu ..	1,000	—	—	—	—	—	—	—	—
Morogoro ..	1,700	222	—	160	—	72·0	72·0	—	28·0
Mwanza ..	9,150	3,068	104	1,790	193	66·9	60·4	6.5	33·1
Mheza ..	1,600	400	—	300	—	75·0	75·0	—	25·0
Namanyere ..	1,000	1,026	225	329	69	49·6	41·0	8·6	50·4
Pangani ..	5,200	4,174	167	3,676	—	91·7	91·7	—	8·3
Shinyanga ..	1,200	418	81	116	—	34·4	34·4	—	65·6
Songea ..	2,200	500	—	273	127	80·0	54·6	25·4	20·0
Singidda ..	1,100	1,320	22	767	380	88·3	59·0	29·3	11·3
Tabora ..	9,100	9,813	3,257	4,517	975	83·7	68·9	14·8	16·3
Tanga ..	15,000	13,811	7,519	3,367	443	60·6	53·6	7·0	39·4
Tunduru ..	1,200	1,000	—	950	—	95·0	95·0	—	5·0
Tukuyu ..	1,100	439	77	219	—	60·5	60·5	—	39·5
Utete ..	5,100	4,247	649	1,828	722	70·8	50·8	20·0	29·2
Zanzibar ..	32,000	—	—	—	—	—	—	—	—
	155,050	73,730	17,320	37,673	4,902	75.4	66·7	8·7	24·6

It will be observed that slightly under 50 per cent. of the issues were reported upon, a great improvement for the year 1922 when only 21 per cent. approximately were quoted. The results are very similar to those for 1922, though nearly twice the number were reported upon. 75.4 per cent. of takes makes a satisfactory return when it is realised that in many instances vaccination must be quite indiscriminate.

The Zanzibar Government continued to obtain their supplies from us to the extent of 32,000 doses.

Comparative table for 1921, 1922 and 1923 is now given :—

	1921.	1922.	1923.
Calves inoculated ..	87	51	82
Grams of pulp	386·22	388·0	510·2
Lymph in ccs.	1,692·5	1,787·5	2,760·0
Total doses	169,250	178,750	184,000*
Doses issued	145,875	173,450	155,050*
Total reported upon ..	20,651	36,956	73,730
Percentage of "takes"..	64·6	60·5	75·4

* Dose now calculated at 100 to each 1½ ccs. whereas in previous years 1 cc. = 100 doses.

The following table records the cases of small-pox notified side by side with the quantity of lymph issued.

Year.	Small-pox Cases Notified.	Lymph Doses Issued.	Variety.
1920	830	?	Made in England.
1921	1,270	146,000	Locally made.
1922	390	173,000	,,
1923	210	155,000	,,

During the present year (1924) there is a considerable drop again in the notified cases of Small-pox.

I. Special Investigations.

Kahns Test a new Flocculation Test for Syphilis and Yaws.—Though this is described as a new test, really it can be no longer described as such as comments on it have already appeared in British medical papers, though, at the time I started the work, no record, except in foreign papers, had appeared. This short investigation was undertaken chiefly with a view of testing if it differentiated between Yaws and Syphilis––a very necessary attainment in view of the fact that the causative organisms, the treatment and the serological tests are identical: secondarily, to decide whether it was a method suitable to out-stations, and thirdly, because the end part of the Sigma re-action was found difficult to read. The technique of the test is simple and consists purely of the admixture of a special cholesterinized antigen to the patient's serum and observing the presence of flocculation after a period of incubation. A brief description of the method is detailed below.

The antigen is prepared as follows :—

The muscle tissue of an ox heart is finely minced and dried in the air completely and as rapidly as possible. There have been difficulties in this connection in this climate and standing in the sun has been resorted to. When thoroughly dry, it is pulverized in a mortar into a brown powder and put into a flask and covered with 1 inch of Ether and left in the ice chest for twenty-four hours, after this, the Ether is poured off and replaced by a fresh lot : this procedure is done three times when the powder is ready for extracting with alcohol after thoroughly drying the powder in order to drive off all the Ether. 100 cc. of absolute alcohol are added to each 20 grammes of powder and allowed to stand together for nine days in the ice chest and one day at room temperature and finally filtered from the powder. To each 35 ccs. of the alcoholic antigen is added .14 grammes of pure cholesterin : the balance of the antigen is not cholesterinized and is used in the control tests. This antigen is rapidly diluted shortly before making the tests in the following proportion : 1 part of antigen to 3 of Saline : the control non-cholesterinized antigen being used in the proportion of 1 to 2 of Saline. These diluted antigens are prepared shortly before the test and in no case has antigen older than an hour been used. They are opalescent fluids.

The Test.

Sera are inactivated as usually done in the Wasserman test, .6 of a cc. of each inactivated serum is pipetted into a small tube rather bigger than a Dreyers agglutination tube and to this is then added .1 cc. of the cholesterinized diluted antigen. The contents of the tube are thoroughly mixed and placed in a water bath at 37° C. and kept there overnight, the readings being made the next morning.

This has been the usual procedure, but it was subsequently decided to employ various dilutions of the sera in order to trace an end point : the dilutions of serum employed usually being (excluding the neat serum) 1 in 2, 1 in 4, 1 in 8, and onwards. These dilutions with saline are very easily made in a painters' porcelain palette for mixing water colours, which in the form in which I have, contains 21 little cup-like depressions, the dilutions being made by progressive halving of the strength of the serum by additions to equal volumes of saline. The results shown in the strongly positive cases can, as a rule, be read extremely easily, for there appears after the suitable interval a single coarse flocculus which may be at the surface or floating in the body of the fluid or as a precipitate.

The intermediate type of re-action consists of a coarse to fine agglutination of particles and in the negative case no visible particles at all. The fine re-actions are best observed with an ordinary hand lens. I have invariably employed progressive dilutions of the serum with a constant volume of antigen rather than keeping the serum strength constant.

The test has been tried as a ring test by carefully super-imposing the antigen on the serum, but has shown no advantages.

Inhibition Zone.—This has been fairly frequently observed and if the test had been employed with only one strength of serum the presence of that phenomenon would not have been noticed at all. As a rule this will only occur in the pure and 1 in 2 dilutions of serum. This phenomenon was only recognized in the later stages of the investigation and it is not possible to make many observations concerning it until further experience is gained.

Infection of the Sera.—This may happen quite easily and the results under these conditions are quite unreliable and should be discarded. The slighter infections are not easy to recognize, but any flocculus that is only at the surface requires careful inspection.

The Kahn Test in Yaws and Syphilis.—A total of 327 sera have been examined and I have tabulated these according to the diagnosis supplied with the specimens: they include all nationalities and it should be stated that frequently specimens have been sent up purely to clear up a doubtful diagnosis :—

KAHN TEST.

	Diagnosis.	Strongly positive.	Positive.	Doubtful.	Negative.
	Not stated	7	5	7	22
	Chancre	4	1	4	4
	Syphilis ?	1	3	1	5
(a)	Syphilis	23	23	7	19
	,, ii	12	11	3	3
	,, iii	35	15	16	6
	Congenital Syphilis	—	1	—	—
	Latent Syphilis	—	2	—	2
	Puerperal Insanity	—	—	—	1
	Iritis	1	—	—	—
(b)	Yaws	33	15	2	8
	,, i	4	1	—	1
	,, ii	2	1	1	—
	,, iii	12	2	1	—

Amongst this series of cases I have marked two groups "*a*" and "*b*" respectively as a "Syphilis group" and a "Yaws group," to include those cases only that appear to have given rise to a fairly confident clinical diagnosis. If these cases are grouped together we obtain the following table :—

	Strongly Positive and Positive.	Doubtful and Negative.
"Syphilis group"	122	56
"Yaws group"	70	13

This then shows that the Kahn test shows 84.3 per cent. positive results in cases clinically Yaws as against 68.5 per cent. positives in cases clinically Syphilis.

This may be interpreted either :—

(*a*) That the Kahn test is more sensitive in cases clinically called Yaws than in Syphilis,

or (*b*) That the cases clinically called Syphilis are not so easily diagnosed correctly.

In order to elucidate this matter more closely the Kahn test should be examined side by side with the Wasserman test as is done in the succeeding sections.

The Wasserman Test in Yaws and Syphilis.—A series of cases of similar character, numbering 217, were examined from the point of view of the Wasserman re-action with the results tabulated below. The details of technique require no repetition as it was the technique usually employed :—

WASSERMAN TEST.

	Diagnosis.	Strongly positive.	Positive.	Doubtful.	Negative.
	Not stated	4	7	—	23
	Chancre	1	2	1	7
	Syphilis ?	2	—	—	2
(*a*)	Syphilis	19	16	6	15
	,, ii	5	8	1	1
	,, iii	8	7	1	1
	Congenital Syphilis	—	1	—	—
	Latent Syphilis	—	1	—	2
(*b*)	Yaws	28	16	7	13
	,, i	1	3	—	—
	,, iii	6	2	—	—

If these cases are classified into groups (*a* and *b*) of cases more or less definitely diagnosed on clinical grounds, the following figures are obtained :—

	Strongly Positive and Positive	Doubtful and Negative.
" Syphilis group "	65	27
" Yaws group "	56	20

This grouping then shows that the Wasserman test gives 70.5 per cent. positive results in cases clinically Syphilis as against 73.6 per cent. positives in cases clinically Yaws : these are results which may be considered identical in so far as a small series of cases can give it.

Comparison of Kahn and Wasserman Test based on Clinical Diagnosis.

Comparing the figures obtained in the last two paragraphs the following tables of results can be given :—

	Kahn Positive.	Wasserman Positive.
" Syphilis group "	68.5 %	70.5 %
" Yaws group "	84.3 %	73.6 %

The conclusion drawn from these figures may be that—

(*a*) The Wasserman test yields about the same percentage of positive results in Yaws and Syphilis ;

(*b*) The Kahn test appears to be more sensitive in the Yaws cases than the Syphilis group ;

but the argument that these results may be due to the greater ease in diagnosing Yaws clinically from Syphilis cannot stand in view of the similar results with the Wasserman test, and I think it can be conceded that the Kahn test is more sensitive in the clinically diagnosed Yaws group than in the clinically diagnosed Syphilis group. At present my figures are not sufficiently big to enable me to say whether any particular stage of Yaws or Syphilis gives more sensitive readings with Kahns test than others.

The Kahn and Wasserman Test compared on Serological Results.—The previous comparative observations on these tests have been based on the diagnosis supplied by clinical evidence alone and in such diseases as Yaws and Syphilis where the tertiary stages are indistinguishable and yet form the majority of cases examined, it is advisable to approach the question unbiased by clinical diagnosis and compare the results obtained in the laboratory alone. Unfortunately the number of cases in which the sera have been examined in parallel has not been large and is detrimental to obtaining a really satisfactory conclusion.

A total of 192 cases have been examined for this purpose and I have tabulated these irrespective of nationality or diagnosis as follows :—

Tests in agreement	Wasserman	Positive	120	= 81·2 per cent.
	Kahn	Positive		
	Wasserman	Negative	36	
	Kahn	Negative		
Tests not in agreement	Wasserman	Positive	12	
	Kahn	Negative		
	Wasserman	Negative	24	
	Kahn	Positive		

That the tests are in agreement in 81.2 per cent. of the cases can be regarded as satisfactory, particularly is this so when it is remarked that some of these cases had been partially treated with Bismuth and that there is evidence that the Wasserman reaction is more easily affected by the treatment given than is the Kahn test : this latter observation will be examined further in another section.

The figure 81.2 per cent. quoted above is obtained from the examination of all types of cases, Syphilitic, Yaws or otherwise, and it may be concluded that in a very high percentage of cases the two tests are in agreement.

The Effect of Treatment on the Test.—During the course of the year a large number of cases of Yaws and Syphilis have been under treatment with Sodium Potassium Bismuth Tartrate, and though the cases are too few it will be of interest to trace the effect of this Bismuth treatment in the few cases available, and if the cases have been examined both with the Kahn Test and the Wasserman the results are probably of more value.

To detail each case individually would have no advantage and I have endeavoured to tabulate the results, and though the cases are few they give an indication of the effect of this Bismuth salt on the tests. I am tabulating the Wasserman test as well as the Kahn test in order to bring out the comparison.

Out of 25 cases examined, on at least two occasions during treatment the Wasserman test has improved in 18 = 72 per cent., while in 33 cases similarly under treatment and examined by the Kahn test only 16 or 48.5 per cent. showed any improvement, though clinically the improvement was often considerable.

If a comparison is made of the serological results at different periods in the treatment the following results are found :—

		Duration of Bismuth Treatment.			
		1 to 4 weeks.	5 to 8 weeks.	9 to 16 weeks.	17 to 36 weeks.
Wasserman Test	Greatly improved ..	3	2	1	5
	Improved	3	3	1	—
	No change	3	2	1	1
Kahn Test	Greatly improved ..	—	—	—	2
	Improved	2	3	4	5
	No change	7	7	3	—

It is interesting to note that while a considerable majority show a great improvement in the Wasserman test after quite a short Bismuth treatment, the Kahn test shows no great improvement until after some weeks of treatment. Apparently the Kahn test is not easily deflected by the Bismuth double Sodium Potassium salt.

Permanence of the effect of Bismuth treatment requires consideration and it is extremely difficult in this early stage to come to any conclusions, but I will quote one case and note at the same time that there are indications that it is by no means an isolated example, for a similar suggestion has been conveyed in other cases which have not been followed quite so completely. The case is one of the later stage of Yaws and has been under Bismuth treatment for 5 months, but who latterly returned with recurrence after an interval of 4½ months without treatment. The details are given chronologically :—

(*a*) 1st Test.—Wasserman not done positive, Kahn strongly positive.
(*b*) Treatment for 6 weeks, 11 intramuscular injections of Bismuth gr. i.
(*c*) 2nd Test.—Wasserman positive, Kahn strongly positive.
(*d*) Treatment for 6 weeks, 8 injections Bismuth gr. i.
(*e*) 3rd Test.—Wasserman negative, Kahn strongly positive.
(*f*) Treatment for 8 weeks, 16 injections of Bismuth gr. i.
(*g*) 4th Test.—Wasserman negative, Kahn positive
(*h*) Interval of 4½ months without treatment.
(*i*) 5th Test.—Wasserman strongly positive, Kahn strongly positive.

I have endeavoured also to classify the cases according to their clinical diagnosis and follow the effect of Bismuth treatment on each stage of Syphilis and Yaws, but the cases are too few to indicate whether Syphilis or Yaws is more amenable to Bismuth treatment ; however, such indications as there are suggests that there is no difference in the effect of Bismuth treatment on the two diseases.

The following summary appear to me to be indicated :—

1. Judged on clinical grounds.
   The Kahn and Wasserman tests give approximately parallel results in Syphilis, but the former appears to be rather more sensitive in Yaws cases.
2. Judged on serological results, there is agreement between the Wasserman and Kahn tests in 81.2 per cent. of the sera sent for examination.
3. Bismuth Sodium Potassium Tartrate affects the Wasserman and Kahn tests similarly, but the former test is more easily influenced than the latter and appears to run pari passu with the clinical symptoms : the Wasserman test appears to be of less value than the Kahn test in judging the progress of a case.

B. REPORT TO THE P.M.O. ON A VISIT TO MOROGORO GAOL IN CONNECTION WITH AN OUTBREAK OF DIARRHŒA AMONG THE INMATES.

I left Dar-es-Salaam for Morogoro on the night of May 16th, 1923, with Dr. Owen, the Senior Sanitation Officer, and arrived back on the evening of May 19th.

The Native Hospital and remaining prisoner patients were inspected on May 17th, as was also the gaol. May 18th was also taken up with the sick patients.

The Cases.

There were eight patients convalescing from Diarrhœa in the Native Hospital. They were the remaining patients from an epidemic of 30 to 40 cases that had occurred during the previous 6 to 8 weeks, and had occasioned a high mortality. Five out of the eight no longer had Diarrhœa, two could not produce specimens and presumably were constipated, one alone had moderate Diarrhœa of a pea-soupy consistency to the extent of two motions in twenty-four hours.

The cases were as follows :—

Name.	Age.	In Gaol.	In Hospital.	Intestinal Parasites.	Remarks.
1. Kijasa	45	1 year	20 days	?	A re-admission has had scurvy.
2. Simba	50	10 years	37 ,,	?	Seriously ill, ? scurvy.
3. Abdulla	50	10 ,,	18 ,,	Ascaris ..	Ill, heart dilated.
4. Salimu	25	1½ ,,	16 ,,	,, ..	Comparatively fit.
5. Eustace Abdallah ..	30	2½ ,,	17 ,,	Ascaris and Ankylost.	A re-admission.
6. Selemani	30	20 months	17 ,,	Ankylost ..	,,
7. Kabukeni	40	13 ,,	8 ,,	Ascaris and Ankylost.	,,
8 Mukuni	45	28 ,,	37 ,,	Ascaris ..	Ill.

Case I.—This patient has been one of four patients diagnosed as Scurvy by the Sub-Assistant Surgeon who has had previous experience of the disease. Has been previously in hospital for Diarrhœa which recurred one day after return to the Gaol. He was very debilitated, and his heart was dilated and pulse rate 96. I was unable to obtain a specimen of fæces. Gums not very spongy.

Case II.—Extremely ill, but not with Diarrhœa, and I was unable to obtain a specimen of fæces.

Debilitated with sunken eyes. Marked Anæmia. Ascites present. Heart feeble. Old adhesions in left chest with well-marked pleuro-pericardial rub.

Left calf muscles enlarged, hard and tender as were also the muscles in the middle half of the left femur. Gums not spongy.

Case III.—Stool constipated with coating of mucus. Ill and much debilitated. Heart enlarged. Pulse 48 with a very rough first sound. No special Anæmia or sponginess of gums.

Case IV.—The fittest and youngest of the patients. Stool formed. No Anæmia.

Case V.—Re-admitted with Diarrhœa after one day's return to Gaol. First admission apparently for Dyseentery. Stool semi-solid intermixed with mucus. No Amœbæ found. No œdema. Not anæmic. Heart normal.

Case VI.—Re-admitted with Diarrhœa after three days' return to Gaol. Stool solid. Heart distinctly feeble Pulse 96.

Case VII.—Has been previously under treatment for Ankylostomiasis, but he is still infected. Oedema of ankles. Heart dilated with hæmic murmurs. Very anæmic. Gums not spongy. Re-admitted for Diarrhœa after one week's return to Gaol. Stool solid.

Case VIII.—An ill man with puffy face. Stools still loose. No œdema. Heart dilated. Pulse 84.

The main information that I gathered during my visit to these patients was :—

1. There had been four cases of Scurvy in the Gaol. One of the patients had been under treatment for the condition. Another possibly was a case of the disease. Five others might well be in a state of "latent Scurvy."
2. None had been in Gaol for less than one year.
3. All but one showed no signs of Diarrhœa, but all but one were debilitated and feeble individuals.
4. Each of six stools examined showed infestation with one or more intestinal parasites.
5. The diet of each patient had been 1 lb. of Rice and one big tin of Ideal milk only per diem, and this had been the diet in two cases for 37 consecutive days. The closing of the Indian shops had prevented the giving of tea recently.
6. The treatment of each case had been either a Bismuth or an Opium mixture.
7. Half the number of cases had had to be retaken into hospital after a day or so discharge. Either they were not convalescent or the Gaol dietary unsuitable.

The Gaol.—Accompanied by the S.S.O., I visited the prison and the following points were noted :—

1. Sick parade. This consisted of about one dozen men. As a group they were depressed and feeble individuals with well marked lassitude and mental torpor. Some had slight œdema of ankles. Their chief complaints were pain in the legs. Abdominal pain or other small disabilities. The majority were unfitted for any form of hard work.
2. Since the removal of the patient with Diarrhœa to the native hospital no new cases have occurred. No cases of similar illness had occurred among the native staff living in the immediate neighbourhood, but the gaoler himself had had an attack of Diarrhœa.

3. The association system was in vogue—the patients sleeping together. The floors were concrete and the conditions at this time of year must be distinctly cold and damp.
4. The Food. This consisted chiefly of cereals in some form, but chiefly maize. Potato and mohogo were added when available. Ghee was provided and meat given three times a month.

No green food had been available recently and no lemons, oranges or limes were provided.

The meal that was ready prepared at the time of inspection consisted of semi-cooked whole grain maize which was stated by the cooks to be preferred by the prisoners. It must have been extraordinarily irritating to a parasite infested intestine.

Some views on this dietary may not be out of place.

Maize is deficient in suitable protein value and its antiscorbutic value is nil if kept heated for long.

Other cereals similarly have no antiscorbutic value unless germinating.

Potatoes and Mohogo. Slight antiscorbutic value depending on time and method of cooking.

Ghee. No antiscorbutic value.

Meat. Slight antiscorbutic value depending on length of time of cooking. It would be best given semi-cooked, or possibly even as something similar to biltong or sundried fish.

The antiscorbutic principle in foodstuff is extremely sensitive to heat.

The dietary from the above would appear to be deficient in antiscorbutic value and probably also in Protein value.

With the advent of the vitamin conception prison dietary can no longer be considered to consist only in supplying food of an adequate caloric value. The caloric value may be very liberal, but a deficiency may exist in the necessary vitamin and this is more likely when there is but little variety in the food.

Complete deficiency of vitamins in a few months will lead to disease which force themselves on our attention and are easily recognisable. Relative deficiency may well be responsible for ill-health which defies diagnosis, but marked debility and lassitude in a collection of prisoners spells "latent Scurvy," and its development is accelerated by cold, damp and hard work.

Points that appear from the Gaol conditions that might influence an epidemic of Diarrhœa and its mortality rate :—

1. Dietary poor in antiscorbutic value and the prisoners living near the vitamin starvation level.

   Green vegetables were difficult to obtain and nothing has been added to replace them and therefore a good many of the inmates were likely to be in a state of latent Scurvy.
2. Damp and cold owing to the rainy season and sleeping on a floor that must be chilling.
3. Association system of confinement would increase the opportunities for spread of disease.

The Causative Organism.

Nothing further could be elicited as the patients were convalescent from Diarrhœa. Three out of the four specimens sent from Morogoro to the Laboratory had previously shown the presence of Bacillus Morgan No. 1. Whether the infection was spread by flies or human carriers I have not elucidated.

Mortality.

This has been high, nearly 50 per cent. of the cases. Judging from the state of general health of the present patients it would not appear to be so surprising.

Reviewing the whole features connected with the Gaol and the outbreak, the following points seems to predominate :—

1. Debilitated individuals of long sentence who have been living on a coarse diet poor in antiscorbutic value for some time.

   Four cases of declared Scurvy had been recognised among them. Such a few cases of this disease may appear unimportant, but they indicate that a danger exists and that probably a much larger number of prisoners are being affected by the same cause and further cases may arise or not according to the resistance of the individual, which probably means his possible store of reserve vitamins or his skill in obtaining them, which depends on the prison efficiency.
2. Each patient examined was found infected with intestinal parasites and the additional burden from the toxins of ankylostomes and other intestinal parasites super-imposed on a diet suggestively deficient in antiscorbutic value must be a severe one.
3. The advent of an infection such as could be caused by Morgan's bacillus on patients as described above is likely to be well-nigh overwhelming.
4. A daily diet of 1 lb. of rice and 1 tin of Ideal milk while a patient is in hospital would not appear to be a satisfactory one on which to build up the health of patients suffering from these conditions.
5. The primary cause of the mortality seems to me to be due to the debilitated condition of the patients resulting mainly from the unsatisfactory prison dietary.

Recommendations.

1. Improved prison dietary from the vitamin point of view, particularly for long sentence prisoners.
2. Disinfestation of all prisoners from Intestinal parasites on admission to a long sentence Gaol.
3. Regular reporting to the Medical Officer of any loss in weight of prisoners at a regular weekly inspection of every inmate of the Gaol.
4. Adoption of solitary cell system rather than association system as a means of prevention of spread of infection.

Sd. G. G. BUTLER,

Director of Laboratory.

Cu.

INDEX.

A.

PAGE
Abortion, Contagious of Cattle 18
Abscess, Deep-seated, Multiple 14
,, Hepatic 14, 182
Agglutinations 187
Aneurysm, Cases of 13
Ankylostomiasis 54, 57, 75, 98, 188
Anopheline mosquitoes, breeding in Dar-es-Salaam 48
Anthrax 16
Antivariolous Lymph 192–195
Aphasia, Hysterical: Case in Native 13
Appendicitis 14, 179
Appendix Abscess, Ascaris Lumbricoides in 14, 179
Appointments to Staff 6
Ascaris Lumbricoides 14, 18, 179
,, ,, Coma and Convulsions due to infection with 18
Asylums 147, 171, 104
Auchmeromyia Luteola 156

B

Bats 16
Bayer 205 92
Bedsteads for Native Hospitals 103
Beri-beri 12
Bhang 155
Bilharzia (see Schistosomiasis)
Births, Registration in Townships Needed 43, 57
Bismuth Sodium Potassium Tartrate 171–177
Blackwater Fever, European incidence of 24, 28-30, 87-88
,, ,, Morbidity due to 28-30, 34, 39
,, ,, report on 87-89
Blood Examinations 185–186
Botanical Gardens, Dar-es-Salaam 43
Boundary Commission, Anglo-Belgian, report on health of 150-158
Building Inspector 43, 101
Buildings, Medical, new and improvements to 103–105, 148
Bukoba District, Venereal Disease in 22–23
Bukoba Hospital 103

C.

Carcinoma in Natives 15, 181
Cataract in Natives 13
Cerebro-Spinal Meningitis 16, 52, 151
Chaulmoogra, treatment of Leprosy by ethyl esters of 53
Cholera 16
Climate and Meteorology, Dar-es-Salaam 70 191–192
Cocoanut Palms, in Townships, Mosquitoes breeding in 46, 50
Coma and Convulsions, due to infection with Ascaris Lumbricoides 18
Committee, Central Town Planning 100
Congenital Defects in Natives 15
Customs of Natives of Ruanda 154–155

D

Dar-es-Salaam: Morbidity due to Malaria and Blackwater Fever amongst Officials 28
,, Plan of 62
,, Sanitation, cost of 63–64
,, Sick Rates of European Officials resident in 27
,, Vegetation in 43, 46–47
,, Annual Report of M. O. H. 47-70

PAGE
Deaths, European .. 39
,, in Medical Staff .. 7
,, in Dar-es-Salaam, notified .. 57-60
,, of Officials, Asiatic .. 31–34
,, ,, ,, European .. 24
,, Registration in Townships needed .. 43, 57
Deficiency Diseases, Food, in Natives .. 12, 159, 201
Dengue .. 16, 151
Dental Surgeon Government, report of .. 149, 150
,, Practitioners, Registration of .. 40–41
Diphtheria .. 17
Diseases and Deaths, In and Out-patients, return of .. 107–134, 135–143
Dodoma, New Hospital to be erected .. 104
Drainage in Townships .. 42, 47, 50, 69, 76, 85
Druggists, Registration of .. 41
Dysentery .. 95

E.

Empyœma .. 13
Enteric Group of Diseases .. 17, 187
Entomologist, medical need of .. 42, 101
Epilepsy in Natives; treated with Bismuth .. 13, 176
Expenditure, Medical Department .. 11–12

F.

Fæces, Examination of .. 187
Financial Returns .. 11-12

G.

Game, Tsetse Fly and Trypanosomiasis .. 90
Gangosa .. 21, 152
Gerezani Creek, Dar-es-Salaam .. 48, 49, 50
Glanders .. 17
Goitre, Parenchymatous in Natives .. 12
Gonorrhœa (see also Venereal Diseases) .. 21-23
Guinea-worm .. 18

H.

Hæmophilia, case of .. 12
Health, Medical Officers of, organized staff needed .. 42
Helminths .. 17-18, 54, 75, 98
Hospital, European, Dar-es-Salaam .. 104
,, Government, work of in 1923 .. 102, 106
,, Permanent to replace Temporary .. 103
,, Sewa Hadji, Dar-es-Salaam .. 42, 103
,, Tanga .. 79, 105
Housing of Medical Officers .. 43, 104-105
Housing of Officials in Dar-es-Salaam .. 61
,, of Natives in Dar-es-Salaam .. 61
,, General .. 61, 76, 79

I.

Incinerators .. 43, 55-56, 77
Infant Mortality (see Mortality, Infantile)
Infectious Diseases in Dar-es-Salaam .. 52, 58
,, ,, Table of for 3 years .. 96–97
Influenza .. 92–93
Inspections .. 44, 169
Intestinal Obstruction, cases of .. 14
,, Parasites .. 17-18, 98, 188
Invalidings of Medical Staff .. 7
,, ,, Officials, Asiatic .. 31
,, ,, ,, Europeans .. 24

PAGE

J.

Juxta-articular Nodules .. 21

K.

Kahn Test for Syphilis and Yaws .. 195, 199

L.

Laboratory, Bacteriological: Report of Director .. 184
Leave, Members of Staff on .. 8
Legislation during 1923 .. 40, 99-100
Leishmaniasis .. 18
Lepers, Convict .. 171
Leprosy .. 98-99
,, at Dar-es-Salaam .. 53-54
,, Report on Treatment .. 53
Library, Medical .. 12
Liver, Abscess of .. 14, 182-183
Liver, Cirrhosis of .. 14
Lunatics .. 13, 147-149, 171, 176, 178
Lunatic Asylum, Report of Superintendent .. 147-149
Lupus Vulgaris .. 14

M.

Malaria, General .. 18, 86-87
,, at Dar-es-Salaam .. 28, 51, 185, 192
,, in native children .. 18
,, Morbidity due to .. 28-30, 37
,, Prophylactic Measures .. 18
Malignant Disease .. 15, 179, 181
Malta Fever .. 18
Market, New at Dar-es-Salaam .. 47, 61, 104
Markets, Tanga .. 78
Measles .. 18
Medical Practitioners, Registration of .. 40
Medico-legal Cases .. 190
Meteorological Return, Dar-es-Salaam .. 70, 191-192
Meteorology, Tanga .. 73
Meteorological Return, Tabora .. 83
Milk Analysis .. 189-190
Morogoro, Prison .. 169, 199-202
Mortality, Infantile .. 40, 41, 101, 153
Mosquitoes, Breeding Places of in Dar-es-Salaam .. 48-50
,, Collections of in Dar-es-Salaam .. 51
Moshi, Hospital .. 105
"Mti Mgonjwa": Report by Acting S.M.O. Tabora .. 176-177
Mumps .. 18
Mwanza Mortality of Convicts .. 160
,, prison .. 160, 165
,, sleeping Sickness in .. 19, 89-92

N.

Natives, Attitude Towards Sanitary Measures .. 44
,, Deficiency Diseases in .. 13, 159, 201
,, Health of in 1923 .. 40
,, Malignant Disease in .. 15, 179, 181
Native Medical Assistants .. 102, 43
Natives, Population Census 1921 .. 40
Non-official, European, Deaths of .. 39

O.

Office, Health: New at Tanga .. 78, 105
Office Superintendent, Need of .. 42
Officials, Asiatic, Sick, Invaliding and Deaths .. 31-34
,, European, Causes of Deaths of .. 24
,, ,, Invalidings of .. 24
Operations, Surgical .. 144-14
Ornithodorus Moubata .. 19, 156
Osteomata, Multiple: Case of .. 1860

PAGE

P.

Paralysis Agitans, in Natives 13
Paralysis, General (G. P. I.) in Natives 13, 178-179
Pellagra 13
Pericarditis, Suppurative: Case of 14
Plague 93-94
Pneumonia, Acute Lobar, in Natives 13
Poisons 15, 190
Police, Report on Health of Native 38-39
Port Work 62
Prisoners and Prisons 78, 158-171
Purpura in Natives 180

R.

Rabies 19
Rat Catching 52, 93
,, Examinations 191
Recommendations 41-43, 101, 170-171
Refuse Disposal 43, 55, 77
Registrations of Births and Deaths 43
,, ,, Druggists 41
,, ,, Medical Practitioners and Dentists 40-41
Revenue, Medical and Sanitary 12
Rickets 13
Rifles, King's African, report on Health of 35-38, 153

S.

Sanitation Officer, Senior, Annual Report of 43, 101
Sanitary Inspectors, Native, Training of 62
Sanitation, on Railway Premises 79
Sanitation, Rural 44-45
,, Urban 46-47
Sanitary Staff, Distribution of 43-44
,, ,, Need of Organised 42
Sarcoma, in Natives 15, 179
Schistosomiasis 17, 75
School Children, Medical Inspection of 62, 75
Schools, Instruction in Hygiene at 79
School, Medical Training, for Natives 43
Scientific 171-183
Scurvy 12, 199, 202
Seven-day Fever 17
Sewa Hadji Hospital, Dar-es-Salaam 42
Sewage Disposal at Dar-es-Salaam 54
Shinyanga: New Hospital 105
Sleeping Sickness: Source of Infection in 91
,, ,, Mwanza Area 19, 89-92
Small-Pox 74-75, 81, 95
,, , Lymph Manufacture 192-195
Spear Wounds 15
Spirillum Fever 19, 152
Spleen, Enlargement of in Natives 151, 183
Staff, Acting Appointments 6
,, Authorised 5
,, ,, shortages on 5
,, Average Number of Executive European Officers of 6
,, Deaths Amongst 7
,, Distribution of 9-10
,, Invalidings 7
,, Medical, Need of Increased 41
,, Members on Leave 8
,, New Appointments to 6-7
,, Resignations 7
,, Retirement from 7
Swahili Language: Proficiency of Staff in 11
Syphilis 21, 22-23, 81, 172-173, 187, 195-199

PAGE

T.

Tables—Sick, Invaliding and Death Rates European Officials 25-27
,, ,, ,, ,, ,, ,, Asiatic ,, ... 32-34
,, Morbidity Rates for Malaria and Blackwater Fever, Dar-es-Salaam .. 28
,, ,, Rates for Malaria and Blackwater Fever, Tanga 29
,, ,, Rates for Malaria and Blackwater Fever, Tabora 30
,, Operations, Surgical 144-146
,, Return of Diseases and Deaths, In-patients and Out-patients .. 107-134, 135-143
Tabora Morbidity Due to Malaria and Blackwater Fever: Officials 30
,, New Native Hospital to be Built 105
,, Sanitation, Report on by Ag. S. M. O. 80-83
,, Sick Rates of European Officials 26
Taenia 17
Tanga Anti-Mosquito Work 74
,, Hospital, Improvements to 79, 105
,, Morbidity due to Malaria and Blackwater Fever: Officials 29
,, Prison 167, 169
,, Report, Annual, of M.O.H. 70-80
,, Small-pox 74-75
,, Township Sanitation 70-80
,, Sick Rates of European Officials 26
Tetanus 19
Three Day Fever 158
Tick Fever (see Spirillum Fever)
Town Planning 61, 100
Township Authorities 46
,, Rules 1923 .. .. 46, 99
Tree Cutting 50
Trypanosomiasis, human 19, 89-92
Tsetse-Fly 19, 52, 156
Tuberculosis 20, 53, 152
,, in Cattle, Rarity of 20
Tumours 15
Typhus Fever 20

U.

Ulcer Ruanda 157-158
,, Tropical Sloughing 15
Urethra, Congenital Defect of 177-178

V.

Vaccination Returns 74, 86, 194
Vegetation, Excessive in Coast Towns 43, 46
Venereal Diseases in Bukoba District 22-23
,, ,, ... 21, 81, 153
Vital Statistics 100-101
Vitamin Deficiency (see Deficiency Diseases, Food)
Vitreous, Hæmorrhage into 13

W.

Wasserman Tests 195-199
Water Supply, Dar-es-Salaam 56
,, Analysis 190-191
Whooping-Cough 20
Wound, Facial, case of 181

X.

X-rays 103

Y.

Yaws 20-21, 23, 54, 75, 152, 171-173, 174-175, 177, 195-199
,, Treatment with Bismuth Sodium Potassium Tartrate 171-175, 177, 198-199

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Tanganyika Territory.

ANNUAL MEDICAL REPORT

FOR THE

YEAR ENDING DECEMBER 31st, 1924.

Price 5/-

PUBLISHED BY
THE CROWN AGENTS FOR THE COLONIES,
4 MILLBANK, LONDON, S.W.1.

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CONTENTS.

PAGE

I. Administrative :—

Sketch Map of Tanganyika Territory 4
Staff 5
Financial 11
Library 12
Legal 12
Hospitals and Dispensaries 13
Medical Stores 13
Inspections 13
Registration of Medical and Dental Practitioners 14
Registration of Druggists 14

II. Introductory :—

(*a*) General 14
  Climatic Conditions 14
  Health Resorts 15
  Maternity and Child Welfare 15
  Sick, Invaliding and Death Rates and Special Reports on the King's African Rifles, Police and Prisoners 15
  1. European Officials 15
    (i) Table showing Sick, Invaliding and Death Rates 17
    (ii) Table showing Sick, Invaliding and Death Rates by Districts . . 18
    (iii) Table showing Morbidity Rates for Malaria and Blackwater amongst European and Asiatic Officials for Dar-es-Salaam 21
    (iv) Table showing Morbidity Rates for Malaria and Blackwater amongst European and Asiatic Officials for Tabora 22
    (v) Table showing Morbidity Rates for Malaria and Blackwater amongst European and Asiatic Officials for Tanga 23
  2. European General Population 24
    (vi) Table showing a Summary of Registered Deaths 24
  3. Asiatic Officials 25
    (vii) Sick, Invaliding and Death Rates 26
    (viii) Sick, Invaliding and Death Rates by Districts 27

4. Native Officials, included under :—

  Report on the Health of the King's African Rifles 30
    (ix) Table—Report on the Health of the Police 34
  5. Native General Population (dealt with under Public Health) . . . 37
    (x) Table—Report on the Health of the Prisoners 36

II. Introductory—*continued.*

PAGE

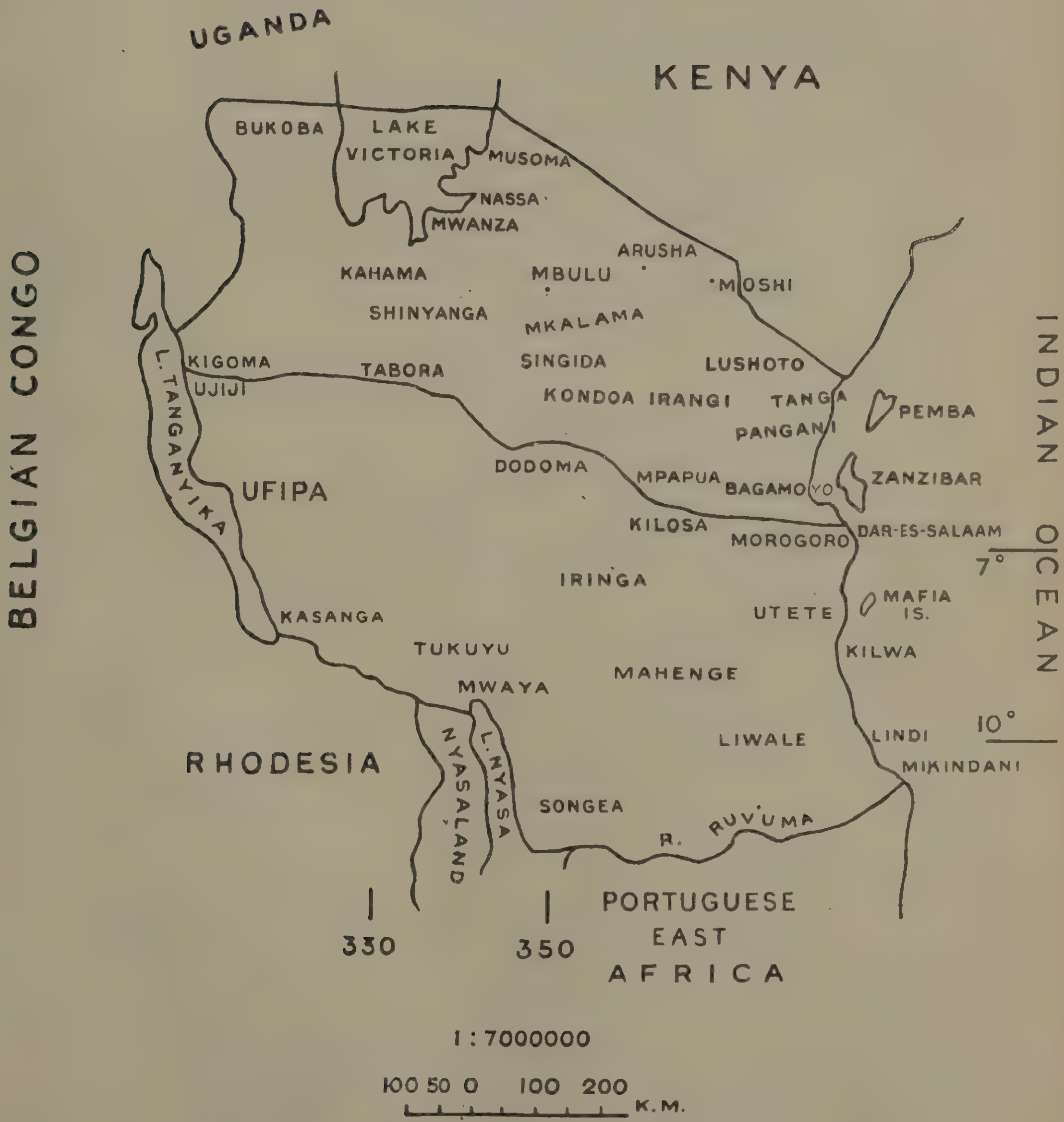
(*b*) Public Health 37
A. General, Systemic and Preventable Diseases 37
B. Infective Diseases 41
Recommendations 50
(xi) Table showing numbers of Fresh Cases and Deaths, In and Out Patients, for all Diseases by Districts 51
(xii) Table showing Summary of Cases, In and Out Patients, by Denominations 66
(xiii) Table showing Return of Diseases and Deaths, In-patients, and Diseases, Out-patients 67
(xiv) Table showing Return of Diseases, In and Out Patients, by Stations. 73
(xv) Table showing Return of Surgical Operations 93
Appendix I. Government Dental Surgeon's Report 97
II. Report on Prisons by Stations 98
III. Report on Lutindi Lunatic Asylum 128
Scientific—
A brief note by Dr. J. H. Parry on four Interesting Cases . 131
An Extract of a Report by Dr. G. R. C. Wilson on the Treatment of Yaws with Bismuth 131

III. Sanitation :—
I. Administrative 132
Staff 132
Financial 132
Plague 132
Small-pox and Vaccination 133
Cerebro-spinal Meningitis 133
Influenza 133
Dysentery 133
Enteric Group 133
Table showing Incidence of Principal Infectious Diseases 134
Vaccination Return 136
Ankylostomiasis 136
Malaria 137
Blackwater Fever 138
Trypanosomiasis 138
Leprosy 139
Urban Sanitation 140
Township Rules 141
Central Town Planning and Building Committee 141
Report of Senior Medical Officer of Health for Dar-es-Salaam, with Plan 141
Report of Medical Officer of Health for Tanga 178
Summary of Routine Sanitary Work done during the Year 190
Recommendations for Future Work 192
Appendix IV. Special Report by Senior Medical Officer of Health on Cocoanut Palms as Breeding Places for Mosquitoes, with Plan of Dar-es-Salaam . 193

IV. Report of the Director of Laboratory, Dar-es-Salaam 197

Index 217

SKETCH MAP
OF
TANGANYIKA TERRITORY



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TANGANYIKA TERRITORY.

Annual Medical Report, 1924.

I. *ADMINISTRATIVE.*

(*a*) STAFF.

1. The establishment as authorised by the Estimates 1923–24 was as follows :—

EUROPEANS :

Principal Medical Officer.
Deputy Principal Medical Officer.
Senior Sanitation Officer.
Director of Laboratory.
3 Senior Medical Officers.
1 Dental Surgeon.
24 Medical Officers.
2 Senior Nursing Sisters.
17 Nursing Sisters.
2 European Clerks.
1 ,, Storekeeper.
1 ,, Assistant Storekeeper.
1 Laboratory Assistant.
1 Superintendent, Lunatic Asylum.
1 Matron, Lunatic Asylum.
7 Sanitary Superintendents.

ASIATICS :

30 Sub-Assistant Surgeons.
20 Compounders.
2 2nd Grade Clerks.
6 3rd and 4th Grade Clerks.

NATIVES :

A considerable number of Clerks, Hospital Attendants, Dispensers, Sanitary Inspectors, Vaccinators, Messengers and Labourers, and three Asiatic Sanitary Inspectors employed under the heading " Native Sanitary Inspectors."

2. For the year 1924–25 the authorised establishment was increased by :—

EUROPEANS :

2 Senior Medical Officers.
9 Medical Officers.
1 Assistant Bacteriologist.
1 Assistant Storekeeper.
1 Sanitary Superintendent.

ASIATICS :

1 Assistant Surgeon.
2 Senior Sub-Assistant Surgeons.
7 Sub-Assistant Surgeons.
1 Compounder.
1 3rd Grade Clerk.

3. At the beginning of 1924 there were the following shortages on the Staff :—

EUROPEANS :

1 Senior Medical Officer.
5 Medical Officers.
3 Nursing Sisters.
1 European Clerk.

ASIATICS :

2 Sub-Assistant Surgeons.

At the end of 1924 the shortages were as follows :—

EUROPEANS :

14 Medical Officers.
1 Assistant Bacteriologist.
1 European Storekeeper.

This does not include shortages due to absence on leave.

The following officers held acting appointments during the year :—

Dr. J. O. Shircore, Acting P.M.O., 9th April, 1924, to 22nd December, 1924.

Dr. G. G. Butler, Acting D.P.M.O., 1st January, 1924, to 31st January, 1924 ; 9th April, 1924, to 14th December, 1924.

Dr. J. G. McNaughton, Acting S.M.O. from the beginning of the year until October 25th.

Dr. J. Hales Parry, Acting S.M.O. from 2nd February until 28th December.

Dr. R. R. Scott, M.C., Acting M.O.H. for whole year ; S.M.O.H. from 1st April, 1924, onwards.

Dr. A. I. Meek, Acting M.O.H. from the beginning of the year until 26th June.

Dr. R. Nixon, Acting M.O.H. from 27th June to the end of the year.

Miss E. Bishop, Acting Senior Nursing Sister from the beginning of the year until 2nd January, and from 3rd September to end of year.

Mr. R. J. Whelan, of the Police and Prisons Department, acted as Superintendent of the Lunatic Asylum, and Mrs. Whelan as Matron, from 1st April until 14th December, while the Superintendent and Matron (Mr. and Mrs. J. Spittles) were on leave.

Appointments :—

The following appointments were made during the year :—

EUROPEANS:

Dr. J. Pugh (S.M.O., Kenya), to be Deputy Principal Medical Officer, 15th December, 1924.
Dr. A. R. Lester, to be a Medical Officer, 16th February, 1924.
Dr. W. K. Connell, to be a Medical Officer, 31st July, 1924.
Dr. F. R. Lockhart, to be a Medical Officer, 18th September, 1924.
Miss E. F. S. Shaw, to be a Nursing Sister, 16th February, 1924.
Mrs. E. L. Evans do. do. 30th March, 1924.
Miss E. Haslett do. do. 29th May, 1924.
Miss K. P. Heckford do. do. 2nd October, 1924.
Mrs. E. S. Thomas do. do. (temporary), 4th May, 1924, to 31st July, 1924, and 20th November to the end of the year.
Mr. N. M. Moore to be a Clerk-Storekeeper, 30th January, 1924.
Mr. B. T. Bailey to be a Sanitary Superintendent, 2nd Grade, 18th September, 1924.

ASIATICS :

Mr. R. Mendirath, to be a Sub-Assistant Surgeon, 20th February, 1924.
Mr. Sant Ram, do. do. 25th June, 1924.
Mr. M. A. Bhosle, do. do. 6th August, 1924.
Mr. D. A. Mhaiskar, do. do. 17th September, 1924.
Mr. Hari Singh, do. do. 17th September, 1924.
Mr. W. R. Bowry, do. do. 28th October, 1924.
Mr. M. A. Shaik, to be a Compounder, 1st October, 1924.
Mr. G. Hendricks, to be a 3rd Grade Clerk, 1st October, 1924.

Promotions :—

EUROPEANS :

Dr. J. O. Shircore, Deputy P.M.O., to be Principal Medical Officer, 23rd December, 1924.
Dr. J. McK. Clark, Medical Officer, to be a Senior Medical Officer, 1st April, 1924.
Dr. R. R. Scott, M.C., Medical Officer, to be a Senior Medical Officer of Health, 1st April, 1924.

ASIATICS :

Mr. J. C. Lemos, Sub-Assistant Surgeon, to be an Assistant Surgeon, 1st April, 1924.
Mr. B. G. Pandit, Sub-Assistant Surgeon, to be a Senior Sub-Assistant Surgeon, 1st April, 1924.
Mr. D. G. Kelkar, Sub-Assistant Surgeon, to be a Senior Sub-Assistant Surgeon, 1st April, 1924.

Retirement :—

Dr. J. B. Davey, Principal Medical Officer, 23rd December, 1924.

Transfers :—

Dr. J. M. Semple, Medical Officer, transferred to Zanzibar, 1st October, 1924.

Agreements Expired :—

EUROPEANS :

Dr. W. E. Haworth, Temporary Medical Officer, 7th July, 1924.
Mrs. S. M. Fichat, Temporary Nursing Sister, 10th March, 1924.

ASIATICS :

Mr. S. V. Pantwaidya, Sub-Assistant Surgeon, 30th May, 1924.
Mr. M. S. Desai, Sub-Assistant Surgeon, 11th June, 1924.

Agreements Terminated :—

Mr. R. Mendirath, Sub-Assistant Surgeon, 6th September, 1924.
Mr. R. G. Pradhan, Sub-Assistant Surgeon, 19th September, 1924.
Mr. Verhumal Lakhumal, Compounder, 23rd September, 1924.

Resignations :—

Miss M. H. Sanders, Nursing Sister, 22nd November, 1924.
Mr. J. F. Freeman, Sub-Assistant Surgeon, 20th October, 1924.

Deaths :—

Nil.

Invalided :—

Mr. G. G. Bam, Sub-Assistant Surgeon, 6th September, 1924.
Mr. P. V. Mathew, Compounder, 4th October, 1924.

Leave of Absence :—

EUROPEANS :

Dr. J. B. Davey, P.M.O., 9th April, 1924, to 22nd December, 1924.
Dr. J. O. Shircore, Deputy P.M.O., beginning of the year till 30th January, 1924.
Dr. A. H. Owen, S.S.O., 13th March, 1924, to 17th October, 1924.
Dr. T. H. Suffern, S.M.O., 23rd February, 1924, to 17th October, 1924.

Dr. C. L. Ievers, S.M.O., 16th February, 1924, to 11th December, 1924.
Dr. P. F. Nunan, S.M.O., beginning of the year till 30th January, 1924.
Dr. J. McK. Clark, S.M.O., beginning of the year till 22nd August, 1924.
Dr. C. R. H. Tichborne, M.O., 9th December, 1924, till end of the year.
Dr. C. B. B. Reid, M.O., beginning of the year till 2nd March, 1924.
Dr. J. Hales Parry, M.O., beginning of the year till 28th January, 1924.
Dr. W. E. Haworth, Temporary M.O., 23rd January, 1924, to 7th July, 1924.
Dr. C. H. Philips, M.O., beginning of the year till 22nd February, 1924.
Dr. G. A. Williams, Temporary M.O., 19th March, 1924, to 5th December, 1924.
Dr. G. Maclean, M.O., beginning of the year till 23rd September, 1924.
Dr. C. F. Shelton, M.O., 13th April, 1924, till end of the year.
Dr. R. Nixon, M.O., beginning of the year till 26th June, 1924.
Dr. J. M. Semple, M.O., 9th April, 1924, to 30th September, 1924.
Dr. A. I. Meek, M.O., 27th June, 1924, till end of the year.
Mr. H. M. Fisher, Dental Surgeon, beginning of the year till 2nd January, 1924.
Miss F. M. Plant, Senior Nursing Sister, beginning of the year till 2nd January, 1924.
Miss J. Fraser, Senior Nursing Sister, 3rd September, 1924, till end of the year.
Miss E. L. Kemsley, R.R.C., Nursing Sister, beginning of the year till 2nd January, 1924.
Miss S. Riordan, do. 27th November, 1924, till end of the year.
Miss M. E. Shearing, do. beginning of the year till 13th July, 1924.
Miss W. R. Grant, do. 1st January, 1924, to 13th July, 1924.
Miss E. Bishop, do. 23rd January, 1924, to 21st August, 1924.
Miss N. E. Wells, do. beginning of the year till 10th February, 1924.
Miss B. G. Allardes, do. 4th March, 1924, to 17th October, 1924.
Miss M. H. Sanders, do. 21st May, 1924, to 21st November, 1924.
Miss M. H. B. Macrae, do. 2nd August, 1924, till end of the year.
Mr. H. Hammond, Lab. Assistant, beginning of the year till 18th May, 1924.
Mr. J. L. Mason, European Clerk, 16th February, 1924, to 5th December, 1924.
Mr. C. N. Rowe, 1st Grade Sanitary Superintendent, beginning of the year till 13th February, 1924.
Mr. R. E. Owen, 2nd Grade Sanitary Supt., 24th December, 1924, till end of the year.
Mr. T. Bell, do. do. beginning of the year till 28th January, 1924.
Mr. J. S. Humphrey, do. do. beginning of the year till 13th May, 1924,
Mr. J. Spittles, Superintendent, Lunatic Asylum, 27th April, 1924, to 10th December. 1924.
Mrs. C. M. Spittles, Matron, do. do. do. do.

ASIATICS :—

Mr. D. G. Kelkar, Senior Sub-Assistant Surgeon, 12th February, 1924, to 3rd September, 1924.
Mr. S. V. Pantwaidya, Sub-Assistant Surgeon, beginning of the year till 29th May,1924.
Mr. M. S. Desai, do. do. 26th January, 1924, to 10th June, 1924.
Mr. D. A. Purandre, do. do. 13th January, 1924, to 20th July, 1924.
Mr. Dewan Chand, do. do. beginning of the year till 27th April, 1924.
Mr. P. S. Paranjpe, do. do. 19th April, 1924, to 12th October, 1924.
Mr. C. K. Borsada, do. do. 10th March, 1924, to 15th May, 1924.
Mr. J. F. Macedo, do. do. 9th August, 1924, till end of the year.
Mr. M. C. Thomas, do. do. 23rd October, 1924, till end of the year.
Mr. P. V. Mathew, Compounder, beginning of the year till 12th June, 1924.
Mr. Ujagar Singh, do. beginning of the year till 21st February, 1924.
Mr. Dasumal, do. 17th May, 1924, to 14th September, 1924.
Mr. A. L. B. Fernandes, 1st Grade Clerk, beginning of the year till 10th June, 1924.
Mr. D. B. Somvasi, 4th Grade Clerk, 1st December, 1924, till end of the year.

DISPOSITION OF THE EUROPEAN STAFF, AND OF THE ASSISTANT, SENIOR AND SUB-ASSISTANT SURGEONS.

Name and Qualifications.	Rank.	Station, Dec. 31, 1924.	Remarks.
J. O. Shircore, M.B., Ch.B. (Edin.), L.R.C.P., L.R.C.S., and L.R.F.P. (Edin. and Glas.), M.R.C.P. (Edin.).	P.M.O. ..	Dar-es-Salaam	
J. Pugh, M.R.C.S. (Eng.), L.R.C.P. (Lond.)	Dy. P.M.O. ..	,, ..	
A. H. Owen, B.A. (Camb.), M.R.C.S. (Eng.), L.R.C.P. (Lond.), D.T.M. and H. (Camb.).	S.S.O.	,, ..	
G. G. Butler, M.B.E., M.R.C.S. (Eng.), L.R.C.P.(Lond.),M.D.,B.Ch.(Cantab.).	Dir. of Lab. ..	,, ..	
T. H. Suffern, M.B., B.A.O., Ch.B. (Royal University, Ireland).	S.M.O. ..	Tabora ..	
C. L. Ievers, L.R.C.S., L.R.C.P. (Edin.), D.T.M. (Liv.).	S.M.O. ..	Tanga	
Dr. P. F. Nunan, B.A., M.D., M.B., B.Ch. (Dublin).	S.M.O. ..	Dar-es-Salaam	
J. McK. Clark, M.B., Ch.B., D.T.M. (Liv.).	S.M.O. ..	Mahenge ..	
R. R. Scott, M.C., M.B., B.S. (Durham), M.R.C.S. (Eng.), L.R.C.P. (Lond.), D.P.H. (Lond.).	S.M.O.H. ..	Dar-es-Salaam	
C. R. H. Tichborne, L.A.H. (Dublin) ..	M.O.	Leave	
C. R. Wallace, L.R.C.P., L.R.C.S., L.M. (Ireland).	,, ...	Kigoma ..	
G. R. C. Wilson, M.R.C.S. (Eng.), L.R.C.P. (Lond.).	,, ...	Tukuyu ..	
C. B. B. Reid, M.B., Ch.B. (Edin.), D.T.M. (Liv.).	,, ...	.. ..	
J. H. Parry, B.A. (Cantab.), M.R.C.S. (Eng.), L.R.C.P. (Lond.).	,, ...	Moshi	
A. McA. Blackwood, M.B., Ch.B.(Glas.)	,, ...	Lindi	
J. G. McNaughton, M.D., M.R.C.P., M.B., C.M. (Edin.).	,, (Temp.) ..	Bukoba ..	
C. H. Philips, L.M.S.S.A. (Lond.) ..	,, ...	Arusha ..	
G. A. Williams, M.R.C.S. (Eng.), D.R.C.P. (Lond.).	,, (Temp.) ..	Morogoro ..	
G. Maclean, M.B., Ch.B. (Glas.), D.T.M. (Liv.).	,, ...	Ufipa	
C. F. Shelton, M.D. (Lond.), M.B., B.S. (Lond.), M.R.C.S. (Eng.), L.R.C.P. (Lond.).	,, ...	On Leave ..	
R. Nixon, M.B., Ch.B., D.T.M., D.P.H. (Liv.).	,, ...	Tanga	Acting M.O.H.
A. I. Meek, L.R.C.P., L.R.C.S., D.P.H. (Edin.), L.R.F.P. and S. (Glas.).	,, ...	On Leave ..	
J. J. B. Edmond, M.C., M.B., Ch.B. (Edin.), D.T.M. and H. (Lond.).	,, ...	Moshi	
O. Fitzpatrick, M.B., Ch.B., L.R.C.P., L.R.C.S. (Edin.), L.R.F.P.S. (Glas.).	,, ...	Sick	
A. R. Lester, M.B., B.S., (B'bay), F.R.F.P. and S. (Glas.), D.P.H., D.T.M. and H. (Edin.).	,, ...	Dar-es-Salaam	
W. K. Connell, M.B., Ch.B. (Glas.) ..	,, ...	Songea.. ..	
F. R. Lockhart, M.B., Ch.B. (Manchester).	,, ...	Dar-es-Salaam	
H. M. Fisher, L.D.S., R.C.S. (Eng.) ..	Dental Surgeon	,, ..	
Miss F. M. Plant	Sen. N. Sister..	On Leave ..	
Miss J. Fraser	,, ..	,, ..	
Miss E. L. Kemsley, R.R.C.	Nursing Sister	,, ..	
Mrs. M. A. Cartlidge	,, ,, ..	Moshi	
Miss S. Riordan	,, ,, ..	On Leave ..	

DISPOSITION OF THE EUROPEAN STAFF, AND OF THE ASSISTANT, SENIOR AND SUB-ASSISTANT SURGEONS—*continued*.

Name and Qualifications.	Rank.	Station, Dec. 31, 1924.	Remarks.
Miss M. E. Shearing	Nursing Sister	Dar-es-Salaam	
Miss W. R. Grant	,, ,,	Mwanza ..	
Miss E. Bishop	,, ,,	Tanga	Acting S.N.S.
Miss B. G. Allardes	,, ,,	Dar-es-Salaam	Acting Health Visitor.
Miss M. H. B. Macrae	,, ,,	On Leave ..	
Miss M. Donald	,, ,,	Tabora ..	
Miss K. Thompson	,, ,,	Dar-es-Salaam	
Miss A. Muncaster	,, ,,	Tanga	
Mrs. K. M. Turnley	,, ,,	Arusha ..	
Miss J. E. Wootten	,, ,,	Dar-es-Salaam	
Miss E. Haslett	,, ,,	Tanga	
Miss K. P. Heckford	,, ,,	Dar-es-Salaam	
Mrs. E. S. Thomas	,, ,, (Temp.)	,, ..	
J. C. Lemos, F.C.P.S. (Calcutta) ..	Asst. Surgeon..	Iringa	
B. G. Pandit, L.C.P. and S. (Bombay)..	Sen. Sub-Asst. Surgeon	Bagamoyo ..	
D. G. Kelkar, L.C.P. and S. (Bombay)	,, ,,	Biharamulo ..	
Dewan Chand, Cert. Lahore Medical School.	Sub-Asst. Surgeon	Dodoma ..	
D. A. Purandre, L.C.P. and S. (Bombay)	,, ,,	Bukoba ..	
Y. L. Moole, L.C.P. and S. (Bombay)..	,, ,,	Mikindani ..	
C. K. Borsada, L.C.P. and S. (Bombay)	,, ,,	Kilwa	
P. S. Paranjpe, L.C.P. and S. (Bombay)	,, ,,	Lushoto ..	
J. F. Macedo, L.C.P. and S. (Bombay)	,, ,,	On Leave ..	
Y. B. Kelshikar, L.C.P. and S. (Bombay)	,, ,,	Dodoma ..	
M. C. Thomas, L.M.S. (Travancore) ..	,, ,,	On Leave ..	
G. V. Sakrikar, L.C.P. and S. (Bombay)	,, ,,	Pangani ..	
K. R. Pagadala, L.C.P. and S. (Bombay)	,, ,,	Songea ..	
B. K. Christian, L.C.P. and S. (Bombay)	,, ,,	Ujiji	
M. P. Dave, L.C.P. and S. (Bombay) ..	,, ,,	Dar-es-Salaam	
A. K. Patreekar, Certificated Hyderabad Decan Med. School.	,, ,,	Musoma ..	
Chunilal Khana	,, ,,	Shinyanga ..	
T. M. Joseph, L.M.P. (Madras).. ..	,, ,,	Kondoa-Irangi	
W. A. Irvine, L.C.P. and S. (Bombay)..	,, ,,	Tabora ..	
S. R. Abhyankar, L.C.P. & S. (Bombay)	,, ,,	Dar-es-Salaam	
C. K. Desai, L.C.P. and S. (Bombay) ..	,, ,,	Mwanza ..	
P. V. Gokhale, L.C.P. and S. (Bombay)	,, ,,	Moshi	
M. B. Pandya, L.C.P. and S. (Bombay)	,, ,,	Tanga	
L. Coro, Malta University	,, ,,	Namanyere ..	
Sant Ram, Certificated Lahore Medical School.	,, ,,	Kilosa	
A. M. Bhòsle, L.C.P. & S. (Bombay) ..	,, ,,	Tabora ..	
Hari Singh, L.S.M.F.	,, ,,	Kahama ..	
D. A. Mhaiskar, L.C.P. & S. (Bombay)	,, ,,	Lindi	
Walaiti Ram Bowry, L.M.F. (Bengal)..	,, ,,	Mwanza ..	

(*b*) FINANCIAL.

Estimated expenditure for period 1st January to 31st December, 1924 :—

Personal Emoluments :—

	£	£
MEDICAL DIVISION :		
Principal Medical Officer and Deputy Principal Medical Officer	2,200	
Clerical Staff, Medical Storekeepers, Packers, Messengers, etc.	3,600	
Senior Medical Officers	3,345	
Medical Officers	12,375	
Dental Surgeon	795	
Nursing Staff	4,250	
Superintendent and Matron, Lunatic Asylum	620	
Indian Medical Assistants, *i.e.*, S.A.S. and Compounders ..	10,640	
Native Dispensers and Hospital Attendants	3,390	
Other Charges	5,460	
	46,675	
SANITATION DIVISION :		
Senior Sanitation Officer, Medical Officers of Health, and Subordinate Staff for the suppression of Epidemic Diseases	7,075	
LABORATORY DIVISION :		
Director of Laboratory and Laboratory Assistant	1,290	
Total Personal Emoluments		*55,040
Other Charges :—		
ADMINISTRATIVE DIVISION :		
Incidental Charges	395	
MEDICAL DIVISION :		
Miscellaneous charges	665	
SANITATION DIVISION :		
Maintenance of Lepers, Lunatics and Incurables	2,380	
Sanitary Labour	10,980	
Upkeep of Infectious Diseases Hospitals	1,135	
Sanitary Oils and Disinfectants	215	
Sanitary Equipment	1,010	
Uniforms	300	
LABORATORY DIVISION :		
Vaccine and Serum	275	
Miscellaneous	285	
Special Expenditure :—		
Sleeping Sickness and Special Sanitary Measures	335	
For Treatment of Venereal Diseases	1,400	
HOSPITALS, DISPENSARIES AND LUNATIC ASYLUM :		
Maintenance of—		
Medical and Surgical Stores	6,340	
Equipment and Furniture	1,065	
Upkeep of Hospitals	9,390	
Upkeep of Lunatic Asylum at Lutindi	510	
Uniforms	200	

Miscellaneous Expenditure :—

Medical Library	140	
Travelling Equipment	220	
Transport, Railage and Passages	6,810	
Total Other Charges		44,050
TOTAL		£99,090

* The Compensatory Allowance paid to the European Staff, approximating a total of £3,680, is not included in this amount.

STATEMENT OF REVENUE, 1924.	£
From Hospital Fees, Sale of Drugs, etc.	6,650
Fees collected by Port and Marine Department for Bills of Health	538
Sale of Vaccine to Zanzibar Government	160
TOTAL	£7,348

LIBRARY.

A number of new books have been added to the Medical Library during the year, and several out-stations have been issued with medical works.

Numerous scientific periodicals of Medical interest have been taken in as before, and the Tropical Diseases Bulletin and the annals of Tropical Medicine and Parasitology distributed to a number of stations.

LEGAL.

During the year 1924 the following Enactments, Rules and Notices were gazetted.

No. 16 of 1924.—An Ordinance to regulate immigration into the Territory. Under this Ordinance powers exist to prohibit immigrants, not being natives born or domiciled in the Territory, viz., a destitute person, an idiot or lunatic, any person certified by a Medical Officer to be suffering from a contagious or infectious disease which makes his entry into the Territory dangerous to the community, a prostitute, the children or dependants, if under the age of sixteen years, of a prohibited immigrant. Under Section 40, sub-section (*a*) any place or port may be declared a port of entry, and any place or port cancelled as a port of entry, and under (*b*) that any disease shall or shall not be considered a contagious or infectious disease for the purposes of this Ordinance.

Government Notice No. 60.—Under the Townships Ordinance 1920 (No. 10)—entitled " The Townships (Aerated Water and Ice Factories) Rules 1924—deals in detail with the building and factory used for the manufacture for sale of aerated water and ice to the public, and with all questions of hygiene relating thereto, and to the preparation of aerated water and ice.

Government Notice No. 218.—Under the Opium Proclamation, 1920, exempts certain preparations containing Opium, Morphine and Arsenic from the operation of Government Notice No. 126 of 1921.

Government Notice No. 122.—Under Registration of Births and Deaths Ordinance 1920 and 1922, amends Rule 3 (2) of the Registration of Births and Deaths Rules 1922, to the effect that the District Registrar shall forward particulars to the Registrar General, and that entry in the register of the particulars shall be deemed to be the registration of such birth or death.

Government Notice No. 141, under The Municipal House Tax Ordinance, 1922 (No. 27), directed that a municipal house tax shall be levied and raised on the net annual value of every house in certain specified townships, at specified rates.

Government Notice No. 160, under The Township Rules, 1923, prescribed certain areas in townships known as zones of which there are three mentioned. Zone 1, for residential buildings of European type, Zone II, for residential and trading buildings, and Zone III, where native quarters may be erected.

Government Notice No. 171, under The Prisons Ordinance, 1921 (No. 14), Dietary Table for Native Prisoners, provides for a better balanced diet, with the addition of meat for long term Prisoners.

Government Notice No. 205, under The Native Authority Ordinance, 1923 (No. 25), Extermination and Control of Tsetse Fly, sanctions the making of regulations and the issue of orders in all districts for the purposes indicated.

Government Notice No. 210, under The Customs Ordinance, 1922 (No. 3), prohibits the importation of Cannabis Sativa or Bhang.

HOSPITALS AND DISPENSARIES.

Besides a few minor items the following is a list of work undertaken by the Public Works Department for this department.

These returns have been taken from the Blue Book for 1924.

Station.	Whether construction or repair.	Whether finished or unfinished.
Kigoma, Native Hospital	Construction.	Unfinished.
Mwanza, Extension of Hospital	do.	do.
Tanga, Infectious Diseases Hospital ..	do.	do.

MEDICAL STORES.

The delay in distribution of Medical Stores, partially due to lack of space at the central store, the demands from new stations, and long lines of communication, has decided me to indent separately on the Crown Agents for each one of the main medical centres. The stores will therefore be consigned, from 1925 onwards, directly to these centres, thereby cutting out very largely the turnover at the central store at Dar-es-Salaam.

The usual routine was for the whole lot of the stores to be landed in bulk, transported to the central store, unpacked, repacked to meet the different indents, and then transported to the various stations.

The new arrangement should therefore bring about a considerable reduction in time, labour, and expense, in connection with both the Medical and Transport Departments.

INSPECTIONS.

The following stations were inspected during the year by the Acting Principal Medical Officer :—

Dar-es-Salaam
Kilosa (twice)
Iringa
Kidugallo
Npapua
Malangali
Ngerengere
Dodoma (twice)
Morogoro (twice)
Tabora

Extracts from the reports on these stations with such recommendations as were considered necessary were sent to the Departments concerned.

REGISTRATION OF MEDICAL AND DENTAL PRACTITIONERS.

On January 1st, 1924, the Register contained the names of :—

Medical Practitioners	32
Dentists	1

During 1924, the following were added to the Register :—

Medical Practitioners	8
Dentists	0

and there were removed from the Register, on departure from the Territory, the names of :—

Medical Practitioners	5
Dentists	0

Of the new names added to the Register 7 are that of members of the Medical Department, and one a private practitioner.

At the end of 1924, there were also 28 persons holding licences to practice medicine and surgery, all of whom were in Government Service.

The Medical Board consisted on the 31st December, 1924, of Dr. J. O. Shircore (Chairman)—Dr. J. B. Davey having retired from the Service—and Drs. A. H. Owen and G. G. Butler (Members).

REGISTRATION OF DRUGGISTS.

No new names were added to the list during the year.

II. *INTRODUCTORY.*

(*a*) GENERAL.

This is the fifth Annual Report of the Medical and Sanitation Department of the Tanganyika Territory. The 1922 Report followed closely the general arrangement adopted in the Report for 1921. In the 1922 Report certain tables which had been introduced into the 1921 Report were left out, as it was thought that nothing was to be gained by setting out at length the figures for each station. The 1923 Report followed the standard Report required by the Colonial Office, but the tables shewing comparative figures for the different stations were reintroduced. These tables are of value in forming some idea of the distribution of the various diseases, or those that might be peculiar to the different districts, on which prophylactic and other measures might be based.

Climatic Conditions. In the Costal Zone, with the exception of a prolonged and trying hot season, which lasted until May, the weather for the rest of the year was pleasantly cool. The climatic conditions elsewhere in the Territory call for no comment.

The health of the population of the Territory has been satisfactory. Tables I, III, IV, V and VII shew an improvement over the figures for preceding years, which might be regarded as the result of the general improvement of our townships, in water supplies and drainage, although much remains to be done in the latter respect ; model town planning, the reservation of definite residential areas for the different communities and of open spaces ; and more adequate medical and sanitation services.

Malaria still continues to provide the principal cause of illness, and the value of quinine prophylaxis is again earnestly brought to the notice of all the denominations concerned. Much has been achieved in the way of clearing trees, filling up and drainage, by the Health Department, of swamps which form reservoirs of anopheline mosquitoes.

It is hoped that with the appointments of a Sanitary Engineer and a Medical Entomologist, the main anopheline reservoirs on the outskirts of Dar-es-Salaam, from which source it is suspected the low lying areas nearer and within the township derive their supplies of anophelines, will be effectively treated, and that the reduction in the incidence of Malaria will be a material one. During 1924 the quantities of Quinine issued from the Central Medical Store for prophylactic and therapeutic purposes were as follows :--

163,230 Tabloids, 522 lbs. 2 ozs. powder, and 1,730 ampoules.

Euquinine 575 Tabloids and 1 lb. 5 ozs. of powder.

Health Resorts. The demand for a Sanatorium on the central line still continues. It is considered that this might best be met by having two Sanatoria, one at Mpapua the other at Itigi. Mpapua is nearer Dar-es-Salaam, has an altitude of 3,380 ft., and although 10 miles from the railway has a motor road leading to it. It is furthermore conveniently situated near the Veterinary Experimental Laboratory and Farm, from which plentiful supplies of dairy produce are available. Itigi is situated some 300 miles from the coast, and is the highest point on the railway line, with an altitude of 4,225 ft., and possesses a healthy bracing climate. It is nearly equidistant between Dar-es-Salaam and Kigoma, the railway terminus at Lake Tanganyika, and could thus be available to all sections on the line.

Maternity & Child Welfare.—During November one of the Nursing Sisters, Miss Allardes, was detailed for special duty in this connection. A small clinic, including a lying-in ward with sufficient accommodation for 4 beds, was in the process of building, but was uncompleted by the end of the year. The work performed by Miss Allardes has been most encouraging in every respect, and a similar clinic will be established at Tabora if possible during 1925. (See also Senior Medical Officer of Health's (Dar-es-Salaam), report on page 141).

SICK, INVALIDINGS AND DEATH RATES AND SPECIAL REPORTS ON THE KING'S AFRICAN RIFLES, POLICE AND PRISONERS.

Whilst statistics of the sick, invaliding and death rates, certain special morbidity rates and reports, regarding the different denominations are given below separately, the collective incidence of diseases and deaths of the population of the Territory as a whole is summarised under the heading "Public Health," which follows immediately thereafter.

EUROPEAN OFFICIALS.

Deaths.—There were only 4 deaths among European Officials, 2 of these were due to accidents and only 2 to disease.

	1922.	1923.	1924.
Cerebro-Spinal Meningitis	1	0	0
Influenza	1	0	0
Malaria	1	1	1
Blackwater Fever	1	2	0
Pyrexia of uncertain origin	0	1	0
Aortic Disease, Angina Pectoris	1	0	0
Appendicitis	0	1	0
Gastro-enteritis	1	0	0
Carcinoma	0	1	0
Accidental	0	0	2
Enteric	0	0	1
	6	6	4

Invalidings.—7 European Officials were invalided during the year, as compared with 14 and 13 during the two preceding years.

	1922.	1923.	1924.
Enteric Fever	1	1	0
Dysentry (Amoebic)	0	2	0
Malaria	2	1	1
Blackwater Fever	3	1	1
Tuberculosis (Pulmonary)	1	2	1
General Debility	3	1	0
Neurasthenia	0	4	1
Psychasthenia	1	0	0
Delusional Insanity	0	1	0
Endarteritis Obliterans	1	0	0
Exophthalmic Goitre	0	1	0
Loss of Vision	1	0	0
Paralysis Agitans	0	0	1
V.D.H.	0	0	1
Fracture of Patella and Septic Knee Joint	0	0	1
	13	14	7

TABLE I.

Sick, Invaliding and Death Rates, European Officials, 1922, 1923 and 1924.

(For the three Principal Towns and the Whole Territory.)

	Dar-es-Salaam.			Tabora.			Tanga.			Whole Territory.		
	1922	1923	1924	1922	1923	1924	1922	1923	1924	1922	1923	1924
1. Total number of Officials Resident ..	418	349	343	86	78	72	94	138	51	836A	800C	861
2. Average number Resident	260	229	232	56	47	72	56	51·14	51	656A	600C	594
3. Total number on Sick List	327	280	358	87	32	50	42	44	36	618B	543	646
4. Total number of days on Sick List ..	2,115	1,969	2.795	449	265	317	260	221	229	4,245B	3.535D	4,584
5. Average daily number on Sick List ..	5·79	5·39	7·66	1·23	0·72	0·87	0·71	0·605	0·63	11·63	9·68D	12·56
6. Percentage of Sick to average number Resident.	2·23	2·35	3·30	2·20	1·53	1·21	1·27	1·18	1·24	1·77	1·61	2·11
7. Average number of days on Sick List for each Patient.	6·47	7·03	7·81	5·16	8·28	6·34	6·19	5·02	6·36	6·87	6·51	7·10
8. Average Sick Time to each Resident	8·13	8·60	12·05	8·02	5·64	4·40	4·64	4·32	4·49	6·47	5·89	7·72
9. Total number Invalided	6	7	6	1	—	—	—	1	1	13A	14	7
10. Percentage of Invalidings to total Residents.	1·44	2·01	1·75	1·16	—	—	—	0·72	1·96	1·56	1·75	0·81
11. Total Deaths	4	1	1	—	1	1	—	—	—	6A	6	4
12. Percentage of Deaths to total Residents	0·96	0·29	0·29	—	1·28	1·39	—	—	—	0·72	0·75	0·46
13. Percentage of Deaths tó average number Resident.	1·54	0·44	0·43	—	2·13	1·39	—	—	—	0·91	1·00	0·67
14. Number of Cases of Sickness contracted away from Residence.	—	—	—	—	3	—	—	—	—	—	16	20

A.—Compiled from Staff Records.

B.—From 17 Stations for which returns are available, viz., Dar-es-Salaam, Dodoma, Tanga, Tabora, Iringa, Mikindani, Lindi, Kilwa, Bukoba, Utete, Kilosa, Pangani, Arusha, Songea, Mwanza, Tukuyu, Bagamoyo; the answers to Questions 5 to 8 are calculated from these figures, the answers to the remaining questions are calculated on numbers of Officials resident in the whole Territory (*i.e.*, answers to Questions 1 and 2).

C.—Approximate only; accurate figures not available.

D.—From 21 Stations shown in Table I. in the 1923 Annual Report.

E.—" Whole Territory," implying those Stations from which reliable returns have been received, *i.e.*, District as enumerated in Table XIV. on pages 73-90.

TABLE II.

EUROPEAN OFFICIALS.—TABLE SHOWING THE SICK, INVALIDING AND DEATH RATES, 1924, BY DISTRICTS.

	Arusha.	Bagamoyo.	Bukoba.	Dar-es-Salaam.	Dodoma.	Iringa.	Kigoma.	Kilosa.	Kilwa.	Kondoa-Irangi.
Total number of Officials Resident	31	8	26	343	36	17	42	11	12	10
Average number Resident	20	4	14	232	22	12	21	7	8	5
Total number on Sick List	13	1	15	358	26	5	26	6	4	2
Total number of days on Sick List	104	2	92	2,795	130	48	114	26	11	5
Average daily number on Sick List	0·28	0·06	0·25	7·66	0·36	0·13	0·31	0·07	0·03	0·01
Percentage of Sick to average number Resident ..	1·40	1·50	1·78	3·30	1·64	1·08	1·48	1·00	0·37	0·20
Average number of days on Sick List for each Patient.	8·00	2·00	6·13	7·81	5·00	9·60	4·38	4·33	2·75	2·50
Average Sick Time to each Resident	—	0·50	6·57	12·05	5·91	4·00	5·43	3·71	1·37	1·00
Total number Invalided	—	—	—	6	—	—	—	—	—	—
Percentage of Invalidings to total Residents ..	—	—	—	1·75	—	—	—	—	—	—
Total Deaths	—	—	1	1	—	—	—	1	—	—
Percentage of Deaths to total Residents	—	—	3·85	0·29	—	—	—	9·09	—	—
Percentage of Deaths to average number Resident	—	—	7·14	0·43	—	—	—	14·28	—	—
Number of Cases of Sickness contracted away from Residence.	6	—	—	—	—	—	—	—	—	—

TABLE II.—*continued.*

EUROPEAN OFFICIALS.—TABLE SHOWING THE SICK, INVALIDING AND DEATH RATES, 1924, BY DISTRICTS—*continued.*

	Lindi.	Lushoto (Usambara).	Mbulu.	Mafia.	Mahenge.	Mikindani.	Morogoro.	Moshi.	Musoma.	Mwanza.
Total number of Officials Resident	20	8	2	2	13	5	27	16	6	35
Average number Resident	11	6	2	1	7	2	22	12	4	20
Total number on Sick List	11	2	1	—	6	2	16	9	3	15
Total number of days on Sick List	11	11	19	—	22	6	78	118	33	161
Average daily number on Sick List	0·30	0·03	0·05	—	0·06	0·02	0·21	0·32	0·09	0·44
Percentage of Sick to average number Resident ..	2·73	0·50	2·50	—	0·86	1·00	1·00	2·67	2.25	2·20
Average number of days on Sick List for each Patient.	10·00	5·50	0·19	—	3·66	3·00	4·87	13·11	11·00	10·73
Average Sick Time to each Resident	10·00	1·83	9·50	—	3·14	3·00	3·54	9·83	8·25	8·05
Total number Invalided	—	—	—	—			—	—	—	—
Percentage of Invalidings to total Residents ..	—	—	—	—	—		—	—	—	—
Total Deaths	—	—	—	—	—	—	—	—	—	—
Percentage of Deaths to total Residents	—	—	—	—	—	—	—	—	—	—
Percentage of Deaths to average number Resident	—	—	—	—	—	—	—	—	—	—
Number of Cases of Sickness contracted away from Residence.	1	—	—	—	—	—	—	—	—	3

TABLE II.—*continued.*

EUROPEAN OFFICIALS.—TABLE SHOWING THE SICK, INVALIDING AND DEATH RATES, 1924, BY DISTRICTS—*continued.*

	Namanyere.	Pangani.	Singida.	Shinyanga.	Songea.	Tabora.	Tanga.	Tukuyu (Rungwe).	A Ujiji.	Utete.	* Whole Territory.
Total number of Officials Resident	6	7	4	16	11	72	51	16	—	8	861
Average number Resident	4	4	2	6	8	72	51	11	—	4	594
Total number on Sick List	1	2	2	7	3	50	36	23	—	1	646
Total number of days on Sick List	2	6	4	54	19	317	229	65	—	3	4,584
Average daily number on Sick List	0·05	0·02	0·01	0·15	0·05	0·87	0·63	0·17	—	0·08	12·56
Percentage of Sick to average number Resident ..	1·25	0·50	0·50	2·33	0·62	1·21	1·24	1·55	—	2	2·11
Average number of days on Sick List for each Patient.	2·00	3·00	2·00	7·77	6·33	6·34	6·36	2·83	—	3	7·10
Average Sick Time to each Resident	0·50	1·50	2·00	9·00	2·37	4·40	4·49	5·90	—	0·75	7·72
Total number Invalided	—	—	—	—	—	—	1	—	—	—	7
Percentage of Invalidings to total Residents ..	—	—	—	—	—	—	1·96	—	—	—	0·81
Total Deaths	—	—	—	—	—	1	—	—	—	—	4
Percentage of Deaths to total Residents	—	—	—	—	—	1·39	—	—	—	—	0·46
Percentage of Deaths to average number Resident	—	—	—	—	—	1·39	—	—	—	—	0·67
Number of Cases of Sickness contracted away from Residence.	1	—	—	7	—	—	—	2	—	—	20

A.—Included in Kigoma figures.
* Stations as enumerated above.

TABLE III.

"SHOWING MORBIDITY RATES FOR MALARIA AND BLACKWATER FEVER AMONGST OFFICIALS," DAR-ES-SALAAM.

	European Officials.									Asiatic Officials.								
	Total days off duty.			Days off duty for Malaria.			Days off duty for B.W. Fever.			Total days off duty.			Days off duty for Malaria.			Days off duty for B.W. Fever.		
	1922	1923	1924	1922	1923	1924	1922	1923	1924	1922	1923	1924	1922	1923	1924	1922	1923	1924
January	178	156	219	40	90	65	—	—	—	330	269	443	184	138	173	—	—	—
February	180	96	282	19	18	74	—	—	—	315	344	257	92	114	89	10	—	—
March	241	247	329	82	31	64	12	—	—	375	274	282	138	94	151	15	—	—
April	152	214	231	71	10	92	—	—	21	244	208	228	93	51	153	—	—	—
May	218	229	312	92	107	163	1	29	25	316	453	235	203	287	144	—	—	—
June	266	192	254	90	105	91	—	17	20	398	335	327	228	273	214	7	—	16
July	237	151	225	75	57	39	32	—	26	311	337	236	176	154	117	10	70	—
August	102	95	142	18	9	23	19	—	—	213	238	283	94	95	134	—	29	20
September	107	89	152	42	27	17	—	—	—	158	166	297	47	56	85	—	—	—
October	123	236	234	18	20	33	—	—	—	175	182	238	57	65	95	—	—	—
November	203	197	205	60	6	1	42	—	—	231	168	233	83	50	103	7	—	—
December..	108	146	210	40	29	43	18	—	—	279	339	180	128	129	89	—	—	—
TOTAL	2,115	2,048	2,795	647	509	705	124	46	92	3,345	3,313	3.839	1,523	1,506	1,547	49	99	36

Percentage of days off duty for Malaria and Blackwater Fever to total days off duty, 1922 .. 36·45
Do. do. do. 1923 .. 27·10
Do. do. do. 1924 .. 28·52

NOTE.—Returns for Europeans incomplete from the Sewa Hadji Hospital for 1922.

Percentage of days off duty for Malaria and Blackwater Fever to total days off duty, 1922 .. 47·02
Do. do. do. 1923 .. 48·45
Do. do. do. 1924 .. 48·87

TABLE IV.

"SHOWING MORBIDITY RATES FOR MALARIA AND BLACKWATER FEVER AMONGST OFFICIALS," TABORA.

	EUROPEAN OFFICIALS.									ASIATIC OFFICIALS.								
	Total days off duty.			Days off duty for Malaria.			Days off duty for B.W. Fever.			Total days off duty.			Days off duty for Malaria.			Days off duty for B.W. Fever.		
	1922	1923	1924	1922	1923	1924	1922	1923	1924	1922	1923	1924	1922	1923	1924	1922	1923	1924
January	32	52	91	11	1	3	—	—	—	115	211	80	103	107	58	—	—	—
February	10	19	64	9	3	13	—	—	—	187	191	117	146	93	63	—	—	—
March	21	13	108	11	3	43	—	—	—	231	182	157	149	66	67	—	—	—
April	39	46	108	9	13	28	—	8	—	210	277	202	120	142	111	—	—	—
May	73	90	96	63	24	39	—	33	—	289	193	83	182	82	23	—	9	—
June	51	32	51	42	32	3	—	—	—	247	273	122	158	134	73	—	19	—
July	30	36	22	12	32	7	—	—	—	167	367	167	140	169	40	—	—	—
August	28	31	23	16	28	2	—	—	—	88	208	102	77	132	50	—	—	—
September	26	45	51	6	1	11	—	—	—	87	274	128	63	90	84	—	—	—
October	41	25	82	11	11	21	—	—	—	15	111	70	6	33	44	—	—	—
November	74	15	33	7	6	2	—	—	—	164	115	93	96	36	76	—	—	6
December..	24	20	33	13	—	14	—	—	—	131	73	104	51	31	50	—	—	14
TOTAL	449	424	762	210	154	186	—	41	—	1,931	2,475	1,425	1,291	1,115	748	—	28	20

Percentage of days off duty for Malaria and Blackwater Fever to total days off duty, 1922 .. 46·77
Do. do. do. 1923 .. 46·00
Do. do. do. 1924 .. 24·41

Percentage of days off duty for Malaria and Blackwater Fever to total days off duty, 1922 .. 66·86
Do. do. do. 1923 .. 45·05
Do. do. do. 1924 .. 53·89

TABLE V.

"Showing Morbidity Rates for Malaria and Blackwater Fever amongst Officials," Tanga.

	European Officials.									Asiatic Officials.								
	Total days off duty.			Days off duty for Malaria.			Days off duty for B.W. Fever.			Total days off duty.			Days off duty for Malaria.			Days off duty for B.W. Fever.		
	1922	1923	1924	1922	1923	1924	1922	1923	1924	1922	1923	1924	1922	1923	1924	1922	1923	1924
January	27	7	16	—	—	8	—	—	—	56	98	84	51	76	31	—	—	—
February	24	21	4	16	—	4	—	—	—	124	95	89	65	54	35	—	—	—
March	24	35	18	20	—	—	—	—	—	200	175	89	55	84	32	—	—	—
April	18	5	10	3	2	10	—	—	—	123	78	48	57	45	31	—	—	—
May	45	25	31	32	13	4	—	—	—	181	130	21	105	96	9	—	—	—
June	16	40	33	16	32	—	—	—	—	122	174	61	56	92	50	—	—	—
July	32	19	30	21	13	12	—	—	—	194	185	125	132	129	40	—	—	—
August	20	6	32	15	3	1	—	—	—	148	99	33	66	61	9	—	—	—
September	32	15	4	9	2	4	—	—	—	93	123	30	39	44	18	—	—	—
October	9	20	31	4	13	—	—	—	—	91	101	25	40	40	10	—	—	—
November	3	7	16	1	1	4	—	—	—	84	113	2	35	12	2	—	—	—
December..	10	20	3	3	10	—	—	—	—	142	91	58	66	11	18	—	—	—
Total	260	220	228	140	89	47	—	—	—	1,558	1,462	665	767	744	285	—	—	—

Percentage of days off duty for Malaria and Blackwater Fever to total days off duty, 1922 .. 53·85
Do. do. do. 1923 .. 40·45
Do. do. do. 1924 .. 20·61

Percentage of days off duty for Malaria and Blackwater Fever to total days off duty, 1922 .. 49·23
Do. do. do. 1923 .. 50·89
Do. do. do. 1924 .. 42·86

TABLE VI.

THE FOLLOWING LIST, KINDLY SUPPLIED BY THE REGISTRAR GENERAL OF BIRTHS AND DEATHS, IS A SUMMARY OF THE REGISTERED DEATHS.

District.	No.	Age.	Sex.	Nationality.	Occupation.	Cause of Death.
Bagamoyo ..	1	39 Years ..	Male	French ..	Missionary ..	Cerebral Malaria.
Dar-es-Salaam	2	32 ,, ..	,,	Belgian ..	Bank Manager ..	Rupture of Gastric Ulcer-Peritonitis.
,, ..	3	62 ,, ..	,,	British ..	Missionary ..	Lobar Pneumonia.
,, ..	4	7½ Months	,,	,, ..	Infant	Broncho Pneumonia.
,, ..	5	48 Years ..	,,	,, ..	Commercial Firm's Employee.	Suicide.
,, ..	6	34 ,, ..	Female	,, ..	Married woman ..	Poisoning, Fish.
,, ..	7	2 ,, ..	Male	,, ..	Child	,, ,,
Kigoma ..	8	23 ,, ..	,,	Belgian ..	Belgian Agent, Ruhanda ..	Heart Failure while bathing.
Lushoto ..	9	29 ,, ..	,,	British ..	Mechanic ..	Cerebral Hæmorrhage
,, ..	10	54 ,, ..	,,	,, ..	Prospector ..	Blackwater Fever.
Mahenge ..	11	33 ,, ..	,,	Swiss ..	Missionary ..	Dysentery.
,, ..	12	42 ,, ..	,,	,, ..	,, ..	Blackwater Fever.
,, ..	13	? ..	Female	,, ..	,, ..	Malaria.
Morogoro ..	14	? ..	Male	British ..	Engineer	Blackwater Fever.
,, ..	15	5 Yrs. 7 Mths.	,,	Irish ..	Child	Cardiac Failure.
,, ..	16	7 Hours ..	,,	British ..	— —	Prematurity.
Moshi	17	60 Years ..	,,	Hollander	Prospector ..	Apoplexy.
,, ...	18	58 ,, ..	Female	S.A. Dutch	Married woman ..	Cancer of Breast.
,, ...	19	14 Months	Male	Greek ..	Infant	Lobar Pneumonia.
,, ...	20	30 Years ..	,,	British S.A.	Bank Accountant	Sub-Tertian Coma & Convulsions.
,, ...	21	29 ,, ..	Female	Greek ..	Married woman ..	Sub-Tertian Malaria.
,, ...	22	12 Hours..	Male	,, ..	— —	P.U.O.
,, ...	23	53 Years ..	,,	,, ..	Ganger, Rly. Construction.	Broncho-Pneumonia.
,, ...	24	39 ,, ..	,,	British ..	SawMillsEmployee	Valvular Disease of Heart.
Rungwe ..	25	62 ,, ..	,,	S. African	Prospector ..	Blackwater Fever.
Tabora ..	26	40 ,, ..	,,	French ..	Missionary ..	,, ,,
,, ..	27	45 ,, ..	,,	Greek ..	Trader	Epyæma, Heart Failure.
Tanga	28	25 ,, ..	Female	,, ..	?	Malaria, Hyperpyrexia & Heart Failure.
,, ...	29	42 ,, ..	,,	British ..	Missionary ..	Sunstoke and Septicæmia.
,, ...	30	45 ,, ..	Male	,, ..	Stevedore ..	Suicide.
,, ...	31	52 ,, ..	,,	,, ..	Missionary ..	General Septicæmia & Septic Pneumonia.
,, ...	32	36 ,, ..	Female	,, ..	?	Shock and Myocardial weakness.
,, ...	33	41 ,, ..	,,	,, ..	Machinist ..	Cerebral Malaria.

ASIATIC OFFICIALS :

Deaths.—Among the Asiatic Officials there were four deaths, whereas there were nine each during 1922 and 1923.

	1922.	1923.	1924.
Malaria	3	1	0
Blackwater Fever	1	1	1
Plague	1	0	0
Pneumonia	2	1	1
Septicæmia	0	1	1
Small-pox	0	1	0
Tuberculosis	0	2	0
Cerebral Hæmorrhage	1	0	0
Fatty Degeneration of Heart	0	1	0
Nephritis	1	0	0
Alcoholism (Acute)	0	1	0
Heart Failure	0	0	1
	9	9	4

Invalidings.—Seven Asiatic Officials were invalided during the year, only three of whom might be attributable to residence within the Territory.

	1922.	1923.	1924.
Malaria	2	0	1
Tuberculosis	1	4	0
Pernicious Anæmia	0	1	0
Diabetes	2	0	1
Hemiplegia	0	1	1
Paralysis	1	0	1
Neurasthenia	0	2	1
Chronic Bronchitis	0	1	0
Physically Unfit	0	0	1
Syphilis	0	0	1
	6	9	7

TABLE VII.

SICK, INVALIDING AND DEATH RATES, ASIATIC OFFICIALS, 1922, 1923 AND 1924.

(For the three Principal Towns and the Whole Territory.)

	Dar-es-Salaam.			Tabora.			Tanga.			Whole Territory.		
	1922	1923	1924	1922	1923	1924	1922	1923	1924	1922	1923	1924
1. Total number of Officials Resident ..	463A	598	707	113A	153	139	197A	115	92	756B	1,000D	1.250D
2. Average number Resident	347A	472	585	85A	116	139	148A	90·14	92	664B	877·5D	1,011D
3. Total number on Sick List	983	1,040	1,377	473	112	341	265	229	123	1,898B	1,807	2,189
4. Total number of days on Sick List ..	3,345	3.167	3,239	1,931	1,638	1,420	1,558	1,465	538	7,565B	8,190	7,140
5. Average daily number on Sick List ..	9·1	8·68	8·87	5·3	4·49	3·89	4·3	4·01	1·47	20·7	22·44	19·56
6. Percentage of Sick to average number Resident.	2·8	1·84	1·52	4·0	3·9	2·79	5·3	4·45	1·60	3·1	2·55	1·93
7. Average number of days on Sick List for each Patient.	3·4	3·05	2·35	4·0	14·6	4·16	5·9	6·35	4·37	3·9	4·53	3·26
8. Average Sick Time to each Resident ..	9·6	6·71	5·54	14·4	14·0	10·22	19·5	12·74	5·84	11·4	9·33	7·06
9. Total number Invalided	2	4	3	—	2	2	1	2	1	6	9	7
10. Percentage of Invalidings to total Residents	0·4	0·67	0·42	—	1·7	1·4	0·5	1·74	1·08	0·6C	0·9	0·56
11. Total Deaths	1	1	2	1	2	—	2	2	1	9	9	4
12. Percentage of Deaths to total Residents	0·2	0·17	0·28	0·9	1·30	—	1·0	1·74	1·08	0·8C	0·9	0·32
13. Percentage of Deaths to average number Resident.	0·3	0·21	0·34	1·2	1·72	—	1·3	2·22	1·08	1·1C	1·02	0·40
14. Number of Cases of Sickness contracted away from Residence.	—	—	—	—	—	—	—	—	—	—	—	11

A.—From 1921 Census. Total resident estimated by adding 33⅓ per cent.Approximate only.

B.—From 15 Stations from which returns received, viz., Dar-es-Salaam, Tabora, Mwanza, Kilwa, Bukoba, Utete, Kilosa, Pangani, Dodoma, Iringa, Tanga, Mikindani, Lindi, Tukuyu, and Bagamoyo.

C.—Calculated on 1921 Census—804 Asiatic Officials. Total resident estimated by adding 33⅓ per cent.

D.—Approximate only; accurate figures not available.

E.—Returns from Mahenge not available for 1923.

F.—" Whole Territory," implying those Stations from which reliable returns have been received, *i.e.*, District as enumerated in TABLE XIV., on pages 73-90.

TABLE VIII.

Asiatic Officials.—Table showing the Sick, Invaliding and Death Rates, 1924, by Districts.

	Arusha.	Bagamoyo.	Bukoba.	Dar-es-Salaam.	Dodoma.	Iringa.	Kigoma.	Kilosa.	Kilwa.	Kondoa-Irangi.
Total number of Officials Resident	7	7	16	707	50	4	52	7	18	6
Average number Resident	6	7	8	585	28	3	30	7	10	3
Total number on Sick List	3	8	11	1.377	81	—	56	8	11	1
Total number of days on Sick List	60	32	52	3,239	448	—	256	71	78	6
Average number of days on Sick List	0·16	0·09	0·14	8·87	1·23	—	0·70	0·19	0·21	0·02
Percentage of Sick to average number Resident	2·66	1·28	1·75	1·52	4·39	—	2·33	2·71	2·10	0·67
Average number of days on Sick List for each Patient	20·00	4·00	4·73	2·35	5·53	—	4·57	8·87	7·09	6·00
Average Sick Time to each Patient	10·00	4·57	6·50	5·54	0·16	—	8·53	10·14	7·80	2·00
Total number Invalided	—	—	—	3	—	—	—	—	—	—
Percentage of Invalidings to total Residents	—	—	—	0·42	—	—	—	—	—	—
Total Deaths	—	—	—	2	—	—	—	—	—	—
Percentage of Deaths to total Residents	—	—	—	0·28	—	—	—	—	—	—
Percentage of Deaths to average number Resident	—	—	—	0·34	—	—	—	—	—	—
Number of Cases of Sickness contracted away from Residence	—	—	—	—	—	—	2	—	1	—

TABLE VIII.—*continued.*

ASIATIC OFFICIALS.—TABLE SHOWING THE SICK, INVALIDING AND DEATH RATES, 1924, BY DISTRICTS—*continued.*

	Lindi.	Lushoto (Usambara).	Mbulu.	Mafia.	Mahenge.	Mikindani.	Morogoro.	Moshi.	Musoma.	Mwanza.
Total number of Officials Resident	20	9	2	3	2	8	11	19	5	33
Average number Resident	10	5	2	3	2	6	8	19	3	14
Total number on Sick List	9	6	—	1	2	11	31	54	6	22
Total number of days on Sick List	110	32	—	5	6	46	109	144	55	276
Average number of days on Sick List	0·30	0·09	—	0·01	0·02	0·13	0·30	0·39	0·15	0·76
Percentage of Sick to average number Resident	3·00	1·80	—	3·00	1·00	2·16	3·75	2·05	5·00	5·43
Average number of days on Sick List for each Patient ..	12·22	5·33	—	5·00	3·00	4·18	3·52	2·66	9·16	12·55
Average Sick Time to each Patient	11.00	6·40	—	1·66	3·00	7·66	13·62	7·57	18·33	19·71
Total number Invalided..	—	—	—	—	—	—	—	—	—	1
Percentage of Invalidings to total Residents	—	—	—	—	—	—	—	—	—	3·03
Total Deaths	—	—	—	—	—	—	—	—	—	1
Percentage of Deaths to total Residents	—	—	—	—	—	—	—	—	—	3·03
Percentage of Deaths to average number Resident ..	—	—	—	—	—	—	—	—	—	7·18
Number of Cases of Sickness contracted away from Residence	—	—	—	—	2	—	—	—	—	3

TABLE VIII.—*continued.*

ASIATIC OFFICIALS.—TABLE SHOWING THE SICK, INVALIDING AND DEATH RATES, 1924, BY DISTRICTS—*continued.*

	Namanyere.	Pangani.	Singida.	Shinyanga.	Songea.	Tabora.	Tanga.	Tukuyu (Rungwe).	Ujiji.	Utete.	* Whole Territory.
Total number of Officials Resident	—	6	4	4	3	139	92	1	8	7	1,250
Average number Resident	—	6	2	2	2	139	92	1	5	3	1,011
Total number on Sick List	—	1	3	3	2	341	123	—	5	13	2,180
Total number of days on Sick List	—	4	24	13	6	1,420	538	—	15	95	7,140
Average number of days on Sick List	—	0·01	0·07	0·03	0·02	3·89	1·47	—	0·04	0·26	19·56
Percentage of Sick to average number Resident	—	0·16	3·50	1·50	1·00	2·79	1·60	—	0·80	8·66	1·93
Average number of days on Sick List for each Patient ..	—	4·00	8·00	4·33	3·00	4·16	4·37	—	3·00	7·30	3·26
Average Sick Time to each Patient	—	0·66	12·00	6·50	3·00	10·22	5·84	—	3·00	31·66	7·06
Total number Invalided..	—	—	—	—	—	2	1	—	—	—	7
Percentage of Invalidings to total Residents	—	—	—	—	—	1·44	1·08	—	—	—	0·56
Total Deaths	—	—	—	—	—	—	1	—	—	—	4
Percentage of Deaths to total Residents	—	—	—	—	—	—	1·08	—	—		0·32
Percentage of Deaths to average number Resident ..		—	—	—	—	—	1·08	—			0·40
Number of Cases of Sickness contracted away from Residence	—	—	—	3	—	—	—				11

* Stations as enumerated above.

Native Officials :

Report on the Health of the King's African Rifles, Tanganyika Territory.

6th Battalion.—Headquarters at Dar-es-Salaam, with Garrisons at Arusha, Mahenge, and Songea.

	Dar-es-Salaam.		Arusha.	Mahenge.	Songea.
	All Diseases.	Malaria & Blackwater.			
Total British Officers and N.C.O.'s Resident, 30.	—	—	5	5	3
Average British Officers and N.C.O.'s Resident, 12.	—	—	0·20	2	2
Total on Sick List	24	15	3	2	1
Total days on Sick List	337	132	33	5	6
Average daily number Sick	0·92	0·36	0·08	0·03	0·02
Percentage of Sick to average number Resident.	7·66	3	3·64	1·50	1
Average number of days on Sick List for each Patient.	14·04	8·80	11	2·50	6
Average Sick Time to each Resident	11·23	4·4	6·60	2·50	3
Total number Invalided	3	—	—	—	—
Percentage of Invalided to total Residents.	10	—	—	—	—
Percentage of Invalided to average number Resident.	25	—	—	—	—
Total Deaths	1	1	—	—	—

		Days on Sick List.
The Invalidings were due to—	Septic Arthritis	156
	Debility	40
	Chronic Malaria	19

The Death was due to Cerebral Malaria.

Other Ranks.

	Dar-es-Salaam.	Arusha.	Mahenge.	Songea.
Total strength, Native Ranks	—	195	112	209
Average strength, Native Ranks	463	159	97·27	194·33
Average daily number on Sick List	18	6·5	2·3	9·95
Percentage of Sick to average Strength.	3·89	4·09	2·3	5·10
Total number Invalided	13	—	—	—
Percentage of Invalidings to average Strength.	2·59	—	—	—
Total Deaths	3	—	2	2
Percentage of Deaths to average Strength.	0·65	—	2·05	1·02
Total Admissions	634	161	101	91
The Invalidings were due to	Chronic Malaria	—	—	Tabes Dorsalis.
	Hernia	—	—	Hernia.
	Debility	—	—	Conjunctivitis.
The Deaths were due to	Obstruction to Portal Circulation.	—	Phthisis	Phthisis.
	Ankylostomiasis	—	Bright's Disease	Gunshot wound (self inflicted).
	Cerebral Malaria	—	—	—

Admissions to Hospital, "Other Ranks," were due to the following diseases :—

DAR-ES-SALAAM.

Malaria	75	Other respiratory diseases	85
Cerebral Malaria	1	Digestive diseases	66
Gonorrhœa	71	Of generative system	60
Syphilis	6	Connective tissue and skins	99
Other infective diseases	68	Injuries	16
Conjunctivitis	20	Parasites	47
Phthisis	2	Other diseases	18
		TOTAL	634

ARUSHA.

Colic	7	Local Injury	25
Gonorrhœa	19	Diarrhœa	8
Dysentery Amœbic	5	Malaria B.T.	5
Bronchitis	6	Rheumatism	6
Chicken Pox	35	Influenza	22
Orchitis	5	Ulcers	8
Broncho Pneumonia	2	Bronchial Catarrh	8
		TOTAL	161

MAHENGE.

Malaria	39	Erythema	1
Injuries	5	Bronchitis	2
Boils	3	Pneumonia	1
Tapeworm	1	Influenza	8
Venereal sore	1	Gumboil	1
Diarrhœa	4	Abscess	2
Conjunctivitis	3	Inflamed glands	1
Bright's Disease	1	Tonsilitis	1
Threadworms	1	Myalgia	1
Orchitis	1	Tuberculosis of Lungs	1
Rectal Fistula	1	Tick Fever	1
Gonorrhœa	7	Lumbago	1
Hard Chancre	1	Synovitis	2
Phimosis	1	Dysentery	2
Bubo	1	P.U.O.	2
Condylomata	1		
		TOTAL	98

SONGEA.

Gonorrhœa	24	Diarrhœa	3
Bronchitis	12	Hernia	1
Rheumatism	8	Ulcer	1
Syphilis	7	Otitis	1
Anæmia	4	Gunshot wound (self inflicted)	1
Dysentery	3	Cellulitis	1
Tapeworm	2	Dislocated Shoulder	1
Lumbago	2	Abscess	1
Synovitis	2	Soft Sore	1
Conjunctivitis	2	Pleurisy	1
Tabes Dorsalis	2	Pneumonia	1
Malaria	5	Phthisis	1
Orchitis	4		
		TOTAL	91

2nd Battalion.—Headquarters at Tabora, with Garrisons at Iringa, Mwanza and Tukuyu.

	Tabora.	Iringa.	Mwanza.	Tukuyu.
Total British Officers and N.C.O.'s Resident	34	7	5	3
Average British Officers and N.C.O.'s Resident	13	3	3	1·3
Total on Sick List	26	4	—	1
Total days on Sick List	412	42	—	11
Average daily number on Sick List	1·13	0·1	—	—
Percentage of Sick to average number Resident.	8·69	3·3	—	—
Average number of days on Sick List of each Patient.	15·85	10·50	—	11
Average Sick Time to each Resident ..	31·60	14	—	10
Total number Invalided	—	—	—	—
Percentage of Invaliding to total Resident ..	—	—	—	—
Total Deaths	1	—	—	—

Invalidings, Nil.
The Death was due to Typhoid.

OTHER RANKS.

	Tabora.	Iringa.	Mwanza.	Tukuyu.
Total strength, Native Ranks..	519	98	193	85
Average strength, Native Ranks	504	98	153	80
Average daily number on Sick List	15·06	1	6	4·5
Percentage of Sick to average Strength ..	3	1·02	3·9	5·6
Total number Invalided	17	1	2	3
Percentage of Invalidings to average Strength	3·36	1·02	1·2	3·7
Total Deaths	3	1	1	—
Percentage of Deaths to average Strength ..	0·55	1·02	0·6	—
Total Admissions	384	64	46	48
The Invalidings were due to	Old Age.	Chronic Ulcers.	General Paralysis.	Leprosy.
	Physical Unfitness.	—	Phthisis.	Paralysis.
	Wound of Finger.	—	—	Tuberculosis.
	Injury.	—	—	—
	Psoriasis.	—	—	—
The Deaths were due to	Malaria.	Broncho Pneumonia.	Pneumonia.	—
	Mumps.	—	—	—
	Tubercular Peritonitis.	—	—	—

Admissions to Hospital, "Other Ranks," were due to the following diseases :—

TABORA.

Malaria	179	Dysentery	10
Influenza	15	Diarrhœa	29
Mumps	101	Gonorrhœa	34
Tick Fever	4	Syphilis	12
		Total	384

IRINGA.

Orchitis	1	Bronchitis	4
Gonorrhœa	16	Broncho-Pneumonia	1
Dysentery	4	Myalgia	2
Mumps	1	Abscess	1
Measles	1	Chicken-pox	3
Malaria	14	Diarrhœa	2
Injuries	3	Arthritis	1
Cellulitis	2	Neuralgia	1
Primary Syphilis	5	Tænia Saginata	1
Chronic Ulcers	1		
		Total	64

MWANZA.

Influenza	4	Barache	1
Malaria	13	Colitis	1
Syphilis	5	Jaundice	1
Gonorrhœa	2	Cellulitis	1
Pneumonia	2	Abscess	1
Phthisis	1	Local Injury	4
Dysentery Bacillary	1	Fracture Forearm	1
Conjunctivitis	2	Bubo	2
General Paralysis	1	Ulcer	1
Other Eye Diseases	1	Bronchitis	1
		Total	46

TUKUYU.

Injury	1	Malaria	12
Intestinal Stasis	1	Paraphymosis	1
Yaws	2	Conjunctivitis	2
Relapsing Fever	8	Influenza	4
Cellulitis	3	Hœmoptysis	1
Corneal Ulcer	1	Pleurisy	1
Syphilis	3	Ulcer	1
Paralysis	1	Gonorrhœa	2
Synovitis	3	Abscess	1
		Total	48

TABLE IX.

REPORT ON THE HEALTH OF THE POLICE.

	Arusha.	Bagamoyo.	Bukoba.	Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilosa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.	Mafia.	Mahenge.	Mbulu.
Total Strength	73	41	126	225	126	69	26	22	23	70	52	93	49	30	62	20
Average Strength	72	39	117·4	187·7	105	65	26	22	23	70	44·7	77	49	—	40	20
Average daily number on Sick List ..	2·0	1·6	6·3	11	1·1	0·6	0·5	0·4	0·5	1·1	—	7·7	2	—	0·23	·06
Number Invalided	—	—	3	4	—	—	—	—	—	—	—	5	—	—	—	—
Number of Deaths	—	—	—	2	—	1	—	—	—	1	—	—	—	—	—	—
Total Admissions to Hospital	47	43	—	164	51	42	22	14	—	22	12	—	1	—	—	4

TABLE IX.—*continued.*

Report on the Health of the Police—*continued.*

	Mikindani.	Morogoro.	Morogoro Depot.	Moshi.	Musoma.	Mwanza.	Namanyere.	Pangani.	Shinyanga.	Singida.	Songea.	Tabora.	Tanga.	Tukuyu.	Tunduru.	Ujiji.	Utete.
Total Strength	25	78	190	59	37	104	38	41	28	17	57	178	79	85	25	59	54
Average Strength	24	78	176	55	34	100	·38	39	24·2	15	57	107	79	80	20	59	54
Average daily number on Sick List.	1·3	3	10	3·12	1·25	7	2·6	1·6	0·3	0·07	2	2·4	1·14	4·5	—	2·4	3·3
Number Invalided	2	1	5	1	1	3	—	1	—	—	1	1	2	3	—	1	—
Number of Deaths	—	—	2	—	1	—	—	—	—	—	—	1	2	—	—	—	—
Total Admissions to Hospital ..	24	164		23	2	81	—	8	26	2	23	134	38	48	14	28	—

The Invalidings were chiefly due to defective visions and affections of the organs of locomotion.

The Deaths in Hospital were due to :—

Dar-es-Salaam.	Iringa.	Kilwa.	Morogoro Depot.	Musoma.	Tabora.	Tanga.
Septic Arthritis & Septicæmia.	Dysentery.	Malaria.	Multiple Abscesses.	Enteritis.	Tertiary Syphilis.	Paraplegia.
Chronic Endocarditis.	—	—	—	—	—	Hœmoptysis.

TABLE X.

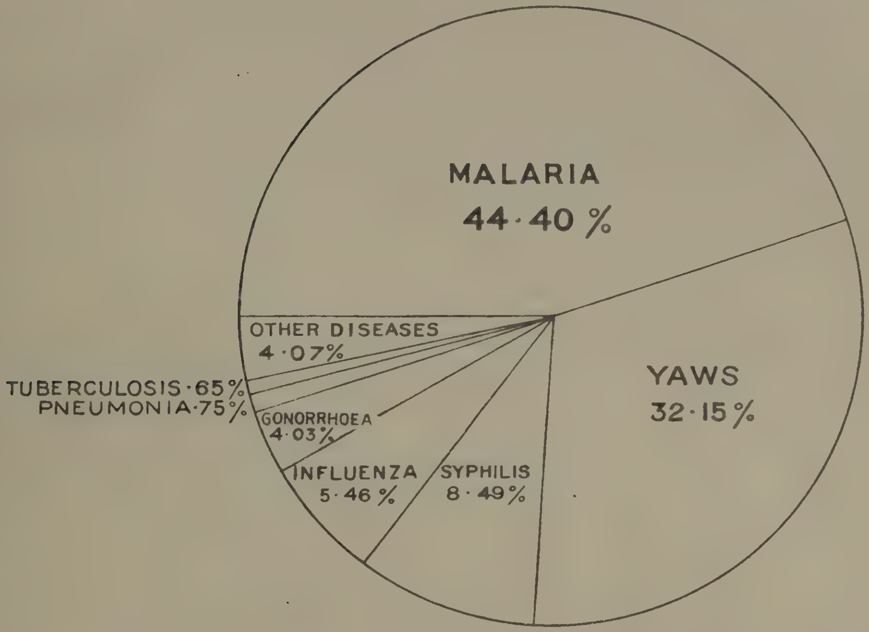
REPORT ON THE HEALTH OF THE PRISONERS.

STATIONS.	Total number committed during 1924.	Daily average number in Prison.	The number of admission to Hospitalduring the Year 1924.	The daily average on the Sick List.	The number of Deaths during 1924.
Arusha	277	63	36	4	1
Mbulu	74	12	—	—	—
Bagamoyo	191	32	—	1	—
Bukoba	412	117	96	21	3
Biharamulo ..	37	5	—	—	—
Dar-es-Salaam ..	940	208	54	7	6
Dodoma	366	92·6	141	5·1	—
Manyoni	57	5	—	—	—
Singidda	124	10·4	4	—	1
Iringa	280	39·3	2	0·1	—
Malangali	90	7	—	0·34	1
Namanyere ..	72	18·6	2	—	1
Kasanga	59	8	—	4·79	—
Kilwa	176	30	3	—	—
Kibata	20	2	—	3	—
Liwale	40	4·6	—	—	—
Kondoa-Irangi ..	79	30·4	17	3·7	1
Mkalama	105	21	—	—	—
Lindi	264	47	50	10·3	2
Masasi	31	3	—	—	—
Mikindani	396	26	1	2	—
Newala	9	2	—	—	—
Tunduru	42	8·7	—	0·08	—
Lushoto	90	21	3	3	1
Mahenge	89	14·1	—	2·4	—
Mkasu	—	—	—	—	—
Morogoro	336	130	119	5	25
Kilosa	309	10	1	0·01	—
Moshi	490	45·3	3	1·06	—
Mwanza	650	156·4	63	19·27	14
Musoma	305	42·25	—	3·25	2
Pangani	579	37·2	9	4·5	—
Handeni	9	2·5	—	—	—
Songea	144	29	19	3	—
Lipumba	41	8	1	0·2	—
Tabora	542	170	171	9	5
Kahama	76	17·3	—	2·2	—
Shinyanga	121	9·54	—	0·43	—
Tanga	349	119	62	2	2
Tukuyu	200	109	94	9	2
Utete	77	15	12	2	1
Ujiji	260	—	4	1·49	1
Kasulu	54	6·5	—	—	—
Kibondo	17	—	—	—	—
Mafia	52	15·61	—	0·5	—
TOTAL.. ..	8,931	1,750·2	967	130·7	69

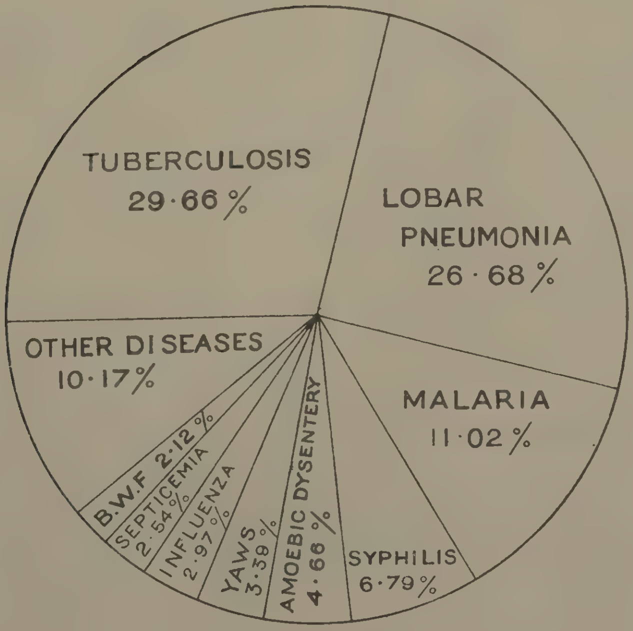
For the above Table I am indebted to the Commissioner of Police and Prisons, Dar-es-Salaam.

INFECTIVE DISEASES

TOTAL INCIDENCE - 51189



TOTAL DEATHS - 236



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(*b*) PUBLIC HEALTH.

The more intimately this department gets into touch with the native population in the districts, the more vividly the importance of expansion, and the provision of hospital accommodation display themselves to one's mind. More light has been thrown on the following diseases :—

Trypanosomiasis, Helminthiasis – Venereal Diseases and Yaws, and Tuberculosis.

They will be remarked upon under the heading of Infective Diseases.

It is proposed to deal with diseases in the following order, and, while some overlapping might take place, the two groups have been assembled from somewhat different points of view. Only those diseases which call for notice either because of their importance, peculiarity of incidence, or distribution, will be commented upon.

(*a*) General, Systemic and Preventable Diseases.
(*b*) Infective Diseases.

(*a*) GENERAL, SYSTEMIC & PREVENTABLE DISEASES.

A total of 168,300 new cases were treated at the different medical stations during the year, with 679 deaths.

	Cases.	Deaths.
* Infective Diseases	51195	237
* Intoxications	4	1
General Diseases	1197	19
Diseases of Nervous System	5483	28
,, of Eye	5903	–
,, of Ear	2261	1
,, of Nose	114	–
,, of Circulatory System	153	11
,, of Respiratory ,,	18150	31
,, of Digestive ,,	23492	107
,, of Lymphatic ,,	679	2
,, of Urinary ,,	180	8
,, of Generative Organs, male	1309	4
,, of ,, ,, female	603	9
,, of Locomotion	5696	3
,, of Connective Tissue	3231	7
,, of Skin	26663	20
* (Scabies)	(5417)	
* Injuries	15465	61
Tumours	162	10
Malformations	7	—
* Poisons	78	2
* Helminths	5542	118
* Insecta	733	—
TOTAL.	168300	679

* Diseases classed as preventable.

Figures from small dispensaries in charge of dressers whose diagnoses merely consist of records of symptoms or signs are not included.

It will be observed from the table that 78,434, or 46.60 %, are definitely cases of preventable conditions. That the total figures for preventable conditions is actually larger is certain because of the remaining diseases, especially those of the Nervous, Respiratory and Digestive systems which account for 47,125, or 27.10 % of all cases, a good proportion would also fall within this category.

Of Skin diseases numbering 26,663, comprising 15.84 % of the total cases, no less than 17,078, or 63.9 %, were due to Ulcers, and 5,417 or 20.4 % to Scabies. A fair number of the General Diseases 1,197, and those of the remaining systems, Eye 5,903, which shewed a large proportion of Conjunctivitis, Lymphatic System 679, Organs of Generation 2,912. Locomotion 5,696, and Connective Tissue 3,231, totalling 19,618, might also be regarded as resulting from the Infective group ; and therefore preventable. It would be reasonable to presume therefore that at least 50% of the diseases the African native suffers from are preventable. Of the Infective Diseases, 51,195 in all, 43,543, or 85% were due to three diseases, Malaria, which accounted for 22,732, Yaws 16,463*, and Syphilis 4,348. This group returned 237 deaths, or 34.9% of the total deaths from all causes.

Of the 237 deaths due to Infective Diseases, Lobar Pneumonia accounted for 63 and Tuberculosis 70, 56.1%, and Malaria 25, or 10.5%. Of the other systems the greatest number of deaths were due to diseases of the Digestive tract, 23,492 cases with 107 deaths, and Intestinal Parasites, chiefly Hookworm 5,542, with 118 deaths. Thus, of the total number of 679 deaths from all causes 68% were due to Infective Diseases, diseases of the Digestive System, and to Intestinal Parasites. Apart from Injuries which caused 61 deaths, the other deaths of note were due to General Diseases 19, Respiratory 31, and Skin 20.

Extension of field work directly dealing with Yaws and Syphilis, renewed efforts against the reduction of Malaria and the suppression of Anopheline mosquitoes in and around our larger and more populated townships, the advancement of general and rural sanitation, and more particularly the improvement of water supplies in as wide an application as possible, by the introduction of properly constructed covered wells, with pumps, in all townships, and indeed at all large centres of native population, where a clean and suitable water supply, piped or otherwise, is not available for the African, should bring about a notable reduction of the diseases and deaths which have been drawn to attention above.

Deficiency Diseases.—These have been dealt with by the Senior Sanitation Officer, but the subject is so intertwined with the health and dietary of labourers and prisoners, that I propose to deal with it from this common aspect under the head of Labour, and prison labour is included in this category.

Plantation Labour.—Labourers in large numbers are employed on plantation work in several parts of the Territory. Extensive areas under Cotton and Sisal along the Central Railway from Ruvu up to Kilosa are under Cotton or Sisal. There are areas in the Lindi, Pangani, Tanga, Lushoto and other districts where similar conditions prevail. The bulk of this labour is recruited from the Tukuyu and Ufipa reserves to the south-west hundreds of miles away, and the labourers have perforce to march these long distances en route for their destinations. In the past no provision of any description was made for this long journey, except an initial supply of coarse food which was consumed within a few hours. On arrival at the plantations the labourers were turned on to build any sort of shelter, and within a day or two were put to work. The Diet issued was deficient in quality and variety, and there were no adequate arrangements for Hospital accommodation, medical attention, water supplies, kitchens, latrines, etc. As a sequence, dysentery, bowel troubles and deaths ensued, and the proportion rendered unfit was large. In order therefore to deal with the various factors involved, and to make available details of remedial measures to employers of labour in simple form, a memorandum dealing with the care of native labour was issued. Some 200 copies were distributed to the Chambers of Commerce, all employers of labour, all Administrative and Medical Officers for guidance. The memorandum, besides general considerations, dealt with and supplied data as follows :— Prerecruiting problems, Recruiting, Diet and Feeding, Clothing, Housing, Maintenance of Cleanliness, Water supplies, Bath and Laundry accommodation, Latrines, Hospital accommodation and Staff, Hospital diet, Drugs and Dressings, Instruments and Equipment. One anticipates that during the course of the forthcoming year some definite effort will be made to give effect to the points covered in the different sections of the memorandum, and that, if by the end of 1925 reasonable improvement has not taken place regarding the organisation of African labour, legislation be introduced to enforce it.

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* Not including the total for district work – see under YAWS.

Prison Labour.—For years the question of the improvement of prison diet has been raised (see Medical Annual Reports, p. 5 of 1922, and pp. 159, 169, 199 and 202 of 1923). During 1924 a recrudescence of disease and deaths revived the subject anew. There were several deaths at the Morogoro Central Jail, and the majority of the long term prisoners lost weight.

The number of prisoners weighed were 142. Their dates of admission to prison life ranged from 1919 – 1924, only one was admitted prior to 1919, i.e. during 1916.

The Prisoners have been divided into two groups.

(A) up to and including 1921.
(B) from 1-1-22 onwards to 9-4-24.
Total Prisoners weighed 142.

(A) 61 Long Term Prisoners.
  20 gained weight, at an average of 7.1 lbs., i.e. 32.7 %.
  3 were stationary.
  6 were in Hospital and were probably under weight on date of weighing.
  32 lost weight at an average of 9.8 lbs.
(B) 81 Long Term Prisoners.
  23 gained weight, at an average of 5.9 lbs., i.e. 28.1 %.
  10 were stationary.
  10 were in Hospital, and were probably under weight on date of weighing.
  38 lost weight at an average of 10.9 lbs.

The Commissioner of Police and Prisons stated in a communication as follows :—

> " I admit that at certain periods of the year it is exceedingly difficult to obtain " accessory food factors, such as vegetables, sweet potatoes, but I can safely say " that the Morogoro prisoners have exactly the same dietary scales as those in " Dar-es-Salaam, Tabora and Dodoma."

The conclusion that was arrived at after reviewing the histories of these outbreaks, and reconsidering the recorded opinions in the Medical Annual Reports, was that the loss of weight of the long term prisoners, and the deaths at the Morogoro Jail were due to several factors, for which an ill-balanced and deficient dietary was chiefly responsible.

The main article of diet that the prisoners depend upon for their protein is Maize or Maize meal, or meal derived from other grain, potatoes, which are not always available, and beans, the stock of which latter are in the majority of samples riddled by weevils, which destroy the most valuable part, *i.e.*, the germ, see p.197 Laboratory Report. All legumes are difficult of digestion, therefore the loss of the protein in beans is great in any case, and is still greater when damaged beans are used.

To compensate for this loss of protein a great bulk of carbohydrate (meal, bread, flour) would be necessary, for carbohydrate contains a comparatively small percentage of protein, which would result in an unbalanced dietary. It was in order to obviate a state of affairs which has been going on for some years, to provide a balanced and easily assimilable diet and to raise the resistance to disease that the addition of meat to the dietary of the long term prisoners was recommended.

The following are the quantities of meat that are considered necessary for the African Labourer by certain Governments and various large employers :—

	1	2	3	4	5	6	7	8	9
Meat ..	194	129	194	224	185	214	163	214	214 grammes.
,, ..	6·4	4·3	6·4	7·4	6·1	7·1	4·7	7·1	7·1 ozs.

An average of 6·3 ozs. per diem.

1.—Minimum diet requirements laid down by the Government of Union of South Africa in 1911.
2.—Minimum diet requirements laid down by the Administration of Northern Rhodesia in 1917.
3, 4 and 5.—Actual dietary issued on three representative compounds on Rand in 1918.
6.—Diet scale in use by Union Miniere, the Katanga, since 1917.
7.—A diet scale formerly used by Union Miniere, now abandoned in favour of 6. (Meat increased by 71 grammes. Meal reduced by 315 grammes.)

The following extracts from the "Hygiene of Native Compounds" (Pearson & Mouchet) are illuminating.

> "In the Katanga, when vegetables are difficult to obtain, their place is taken "by an extra ration of ½ Kilo. of meat per week."

> "The Prescorbutic condition in which, as has been noted, many natives arrive "from the villages for work makes it necessary for us to issue a diet which is not "only sufficient to meet the daily output of energy required from them, but which "is capable of restoring them to a normal condition, improving their general condition, "and building up both their tissues and their powers of resistance."

"Diet of Mine Natives," published by Dr. Loesser, on the Rand in 1912, the Author compares the scurvy noted among South African natives with that of sailors on board ship on long voyages. He states his belief that the native suffers because of a shortage of both protein food and of fresh vegetables, while the sailor is ill on account of a shortage of the latter only. He attributes to this reason the value of limejuice to the sailor, and its failure with the native on the Rand. He believes that it is necessary to give the native additional meat which he finds preferable to limejuice.

In another standard work "The Health of the Industrial Worker" (Collis & Greenwood), the following statements are made:—

> "Thus it comes about that while carbohydrates, protein and fats are all "available sources of fuel, deprivation of proteins, however much energy be offered in "the guise of fats or carbohydrates, is fatal."

> "The need for calories for the human engine is fundamental, no subtle "arguments, no appeal to a specialised experience, no invocation of half compre-"hended factors such as "Vitamins" must be allowed for an instant to obscure "this truth."

> "The retribution of neglect in this matter is slow but sure. An underfed "industrial population does not collapse suddenly. In short the consequences of "undernutrition are slowly progressive decline of efficiency. Unless the deficit "is qualitative as well as quantitative there will be no dramatic incidents. Morbid-"ity will increase, but there will be no new or strange diseases, merely an increased "toll taken by the customary kinds of sickness."

This is indeed what we have experienced.

It has been suggested that meat does not form part of the ordinary diet of Africans in this Territory. It can however be stated with confidence that the only natives of this country who do not eat meat are those who are unable to obtain it. Tribes occupying cattle country obtain their protein from blood, milk and curds, and therefore do not feel the need for meat. Tribes that live in fly country cannot get meat except by hunting, and this they are prohibited from doing by our game laws. Natives in townships purchase meat whenever they possess the means to do so.

In view of the above data a recommendation was made to the effect that a meat ration was essential, and that not less than six ozs. of meat should be allowed per diem, per long term prisoner.

I should like to see our game laws relaxed somewhat, to permit of the native of the country making some addition in the form of meat to his dietary, without running the risk of prosecution.

Poisons.—Two deaths due to Tetradon poisoning occurred at Dar-es-Salaam. It appears that the servant in charge of an European child, while having an evening outing on the beach, took a small fish, which was carried home. The fish roe was cooked for the child's supper, and the mother tasted some before the child ate it. Within a few minutes the child felt very unwell, nausea, severe abdominal pain, collapse, and ascending paralysis supervened in quick succession, and before the child could be taken to hospital it succumbed. The unfortunate mother was seized somewhat later, in a similar manner and died in Hospital, four hours after. The fish is known locally by the name of "Bunju," and may be found in the shallows left on the reef by the receding tide. (*See* also p. 209 Laboratory Report).

Urinary Diseases.—An interesting case of Calculus in the bladder of an African native was recorded at Singidda. The Sub-Assistant Surgeon, Mr. Paranjpe, who was in charge of this sub-station, removed the stone by Supra-pubic Cystotomy. The stone was sent to the Laboratory at Dar-es-Salaam for examination. It weighed 5½ ozs., was somewhat dumbell shaped, consisted of a nucleus of Uric acid with an outer covering layer of the Phosphates of Ammonia. Unfortunately the patient, an old man, died, and further details regarding his tribe, the area of his permanent residence, and the history of his case, were no longer available when enquiry was made from headquarters.

(*b*) INFECTIVE DISEASES.

Anthrax.—Seven cases with two deaths. Six of these cases were intestinal infections due to eating diseased meat, and one was due to malignant pustule due to handling hides. The distribution was, Singida, five cases ; Mwanza, one ; and Dodoma, one ;—all cattle supporting districts. From information received, of which accurate data are not available, enquiry elicits the fact that a fair proportion of the cases recover without treatment, so that the disease probably exists in somewhat attenuated form, or there is a certain degree of immunity among the local tribes.

Cerebro-Spinal Fever.

1922	12 cases	9 deaths
1923	103 ,, ...	91 ,,
1924	5 ,, ...	2 ,,

Musoma, Mwanza, Pangani, Tanga and Songea returned one each. The case mortality rate was low and there is nothing special to note otherwise.

Dengue.

1922	cases nil
1923	,, 9
1924	,, 30

This disease has hitherto been reported only from the costal zone, Dar-es-Salaam apparently is a somewhat highly infective centre, and the monthly incident of cases shews a definite correlation to the rainfall and variation in the mosquito index. European Officials returned 8. European General Population 16. Native Officials 6 cases.

The monthly incidence was as follows :— January, February, March, Nil ; April, 1 ; May, 8 ; June, 9 ; July, 3 ; August, 4 ; September, 2 ; and December, 3.

Diphtheria.

1922	2
1923	Nil
1924	1

Dysentery.—See Senior Sanitation Officer's report, page 132.

Encephalitis-Lethargia. Nil.

Endemic Goitre (10).—A single case has been reported from each of the following stations, Arusha, Bukoba, Dar-es-Salaam, Kigoma, Songea and Tabora, and two each from Mbulu and Morogoro. Details are not available as to which districts the patients actually belonged to, but it is significant that the majority of the cases have been reported from the higher altitudes.

Arusha Township (Mount Meru, which is thickly populated, is several thousand feet higher)	4400 feet.
Mbulu	5600 ,,
Tabora	4028 ,,
Bukoba (Karagwe Highlands)	4265—4600 ,,
Morogoro (Uluguru Range rises to 8,900 feet)	8900 ,,

Enteric Fever.—See Senior Sanitation Officer's report. There would appear to be definite foci of infection at Tabora and Kigoma. Cases have occurred year after year at one or other, or both of these places; it could scarcely be the water supply that is at fault, much more likely it is due to a carrier infection, and that some purveyor or cook is responsible.

Glanders. Nil.

Helminthiasis.—See Senior Sanitation Officer's report. Helminthiasis in all its commoner manifestations is widely distributed throughout the Territory. Schistosomiasis, Hoematobium and Mansoni, are relatively frequent.

Regarding Filariasis an interesting note was included in a report by Sub-Assistant Surgeon Irvine, who worked for several months in the Bacteriological Laboratory, and while there, had made a special study of the Filarioe, under Dr. Butler, and who was later sent to the Liwale area to investigate an outbreak of sleeping sickness.

During the course of blood examinations the following Filarial infections were recorded as due to Microfilaria Perstans (Minor).

TOTAL CASES EXAMINED IN THE LIWALE-KILWA AREA.

Cases examined. ..	No.	Trypanosomes.	Microfilaria.	S.T. Parasites.	Crescents.
Men	357	2	112	15	1
Women	45	1	15	7	0
Children (below 12)	25	0	0	0	0

CASES IN THE INFECTED AREA ALONG THE MBEMKURU RIVER.

Cases examined.	No.	Trypanosomes.	Microfilaria.	S.T. Parasites.	Crescents.
Men	179	2	77	10	1
Women	28	1	4	4	0
Children (below 12)	12	0	0	0	0

A Culicine mosquito was said to be prevalent in great numbers. No cases of Elephantiasis were seen.

Elephantiasis.—There were 218 cases of Elephantiasis of the Leg, Scrotum and other situations, reported from 23 different stations. The Leg and Scrotum appear to be affected in equal proportion.

Guinea Worm.—Two cases were reported from Mwanza, but no details regarding tribe and habitat of the patients were given. While it is uncertain that the Mwanza district is within the endemic area, it is however near enough not to preclude the probability of infections having been acquired in Uganda. A third example of Guinea Worm was discovered during an operation for Hernia in one of the K.A.R. askaria; there are several Nilotic natives in the Battalion, and presumably it occurred in one of them. (*See* also page 207, Laboratory Report.)

Malaria and Blackwater Fever.—Malaria returned the largest aggregate of any single disease during the year, *i.e.*,22,732 cases. Its main foci appear to be at Bukoba, 1,342; Dar-es-Salaam, 6,883; Moshi, 3,471; Tabora, 971; Tanga, 805; and Tukuyu, 741, totalling 14,231. These stations are our main sea and lake ports, and Moshi and Tukuyu are virtually our points of entry from Kenya and Nyasaland respectively. The numbers of infections that occur among new arrivals indicate that special attention should be concentrated on these areas. It is proposed with the view of reducing the reservoir of carriers to introduce Quinine prophylaxis among the School Boys, the King's African Rifles, Police askari, if possible including their children, and Prisoners. Euquinine would be substituted for Quinine for the children.

The appointment of a Sanitary Engineer and a Medical Entomologist should prove of value.

Regarding Blackwater Fever (*see* Senior Sanitation Officer's report, page 138) there has been a decided reduction of incidence.

	Cases.	Deaths.
1921	42	7
1922	47	4
1923	35	7
1924	30	5

There were no unusual features calling for comment, but the importance of Quinine prophylaxis might here again be emphasised.

Mumps.

1922	54 cases	
1923	92 ,,	
1924	165 ,,	with 1 death.

The South-Western area was chiefly affected.

Measles.

1922	62 cases
1923	17 ,,
1924	27 ,,

Plague.—(*See* Senior Sanitation Officer's Report.) This disease in all probability will presently be brought into greater prominence owing to the expansion of agriculture, particularly relating to seed cotton and cotton-seed traffic, and the opening up of railway communication.

Plague is endemic in the Mwanza (at Shirati and Musoma), Singida, Kondoa-Irangi and Arusha districts, and outbreaks have occurred in the past from time to time, but not to any serious extent.

Rabies.—No cases have been reported since our occupation of the Territory.

Relapsing (Tick) Fever.

1922	44 cases
1923	119 ,,
1924	148 ,,

With wider medical supervision the incidence of this disease in the Territory is becoming increasingly evident. There can be little doubt, reading between the lines of the different returns, that cases are more numerous than are shewn. In well-known Tick areas, a proportion of the cases returned as headache, facial paralysis, and eye affections, might reasonably be regarded as those of Spirillum Fever. The South-Western quadrant is far more heavily infected than any other area. Of the 148 cases, Iringa returned 28, Namanyere 24, and Tukuyu 24. There are grounds for the assumption that drafts of troops from Nyasaland, labour recruits and carriers from Tukuyu, Ufipa, Songea and Mahenge districts have been responsible for the spread to the North and North-East.

Ornithodorus Moubata is extensively established along all the main carrier routes, and the problem is therefore a difficult one. When this department is in a better position to examine and treat labourers in transit, some reduction of infectivity might be anticipated. The Ticks are fortunately not heavily infected, and the infection is usually of a benign type. No deaths have been reported hitherto and sequelœ are rare.

Seven-day Fever.—The description of this condition in the 1923 report bears a close similarity to examples of Dengue. Only six cases have been reported during 1924. During January five, and February one, and none others for the remainder of the year ; whereas from April onwards, a total of 30 cases of Dengue were reported, but none of seven-day fever. I am inclined to the belief that some if not all the cases described as seven-day fever were in reality Dengue.

Trypanosomiasis.—(*See* Senior Sanitation Officer's report.) Three fresh areas of Trypanosome infection have been discovered. One below Kigoma on the shores of Lake Tanganyika, due to T. Gambiense ; the remaining two, one in the Liwale sub-district of Kilwa, the other lying over an extensive Morsitans area stretching from below the Ufipa plateau to the East, North-East, North and North-West, up to within a few miles of Tabora. That is as far as the investigations have gone at present. The fly belt of this area is practically continuous with the vast fly belt which extends Northward through the Tabora district, and terminates within a few miles to the West of Mwanza. We have already two Medical Officers, one of whom Dr. Maclean has had considerable experience of Sleeping Sickness in the Mwanza area, a Sub-Assistant Surgeon, and two qualified Nyasa Dispensers, besides dressers, working in the area ; and it is hoped shortly to appoint an additional Medical Officer. The area has perforce had to be quarantined.

Besides quarantining, the usual methods of evacuation of natives from fly areas into fly free areas, clearing around villages, water supplies and main routes, the establishment of segregation camps, where treatment with the latest drugs such as Tryparsamide and Bayer "205," could be carried out have been undertaken. Sufficient time has not elapsed to warrant any arrival at definite conclusions; the area appears to be fairly intensely infected, and systematic persistent work will have to continue for some time, but nothing has transpired up to date to cause undue alarm. I would like however to draw particular attention to the fact that both the Liwale and Ufipa-Tabora sleeping sickness areas border on game reserves, which are heavily infested with G. Morsitans and well stocked with game ; and that the largest numbers of the cases in the Liwale area have been found in the villages nearest the reserve.

As regards the Liwale and Kigoma areas, *see* Senior Sanitation Officers' report.

TUBERCULOSIS.

The following data have been taken from the figures available in the past years' Annual Medical Reports. Only the total cases and deaths are available in that of 1922, and the distribution of cases and the total of deaths for 1923.

	1921.		1922.		1923.		1924.				TOTAL.	
	All Forms.		All Forms.		All Forms.		Pulmonary.		All Other Forms.			
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Arusha	9	1	—	—	5	—	4	3	3	2	—	—
Bagamoyo	6	—	—	—	5	—	2	1	—	—	—	—
Bukoba	4	1	—	—	5	—	6	2	—	—	—	—
Dar-es-Salaam, European Hospital ..	5	—	—	—	1	—	—	—	3	—	—	—
,, Sewa Hadji Hospital ..	38	11	—	—	29	—	22	3	—	—	—	—
* ,, Medical Officer of Health	—	—	—	—	—	—	2	—	—	—	—	—
* ,, Private Practitioners ..	—	—	—	—	—	—	3	—	—	—	—	—
Dodoma	—	—	—	—	8	—	6	1	—	—	—	—
Iringa	5	—	—	—	2	—	1	—	—	—	—	—
Kigoma	—	—	—	—	7	—	8	4	—	—	—	—
Kasanga	2	—	—	—	—	—	—	—	—	—	—	—
Kilwa	—	—	—	—	3	—	1	1	—	—	—	—
Kondoa-Irangi	1	—	—	—	3	—	10	—	3	—	—	—
Kahama	—	—	—	—	—	—	1	—	—	—	—	—
Kilosa	—	—	—	—	—	—	2	2	—	—	—	—
Lindi	4	—	—	—	5	—	—	—	—	—	—	—
Lushoto	1	1	—	—	3	—	12	—	—	—	—	—
Mafia	1	—	—	—	—	—	1	1	1	—	—	—
Mahenge	2	—	—	—	—	—	5	2	—	—	—	—
Mbulu	—	—	—	—	—	—	4	—	—	—	—	—
Mikindani	—	—	—	—	3	—	3	—	—	—	—	—
Morogoro	9	2	—	—	—	—	18	10	1	—	—	—
Moshi	64	6	—	—	32	—	69	2	—	—	—	—
Musoma	—	—	—	—	—	—	—	—	—	—	—	—
Muhoro	2	—	—	—	—	—	—	—	—	—	—	—
Mwanza	5	2	—	—	5	—	16	7	—	—	—	—
Pangani	4	—	—	—	12	—	41	8	—	—	—	—
Shinyanga	2	—	—	—	—	—	3	—	—	—	—	—
Songea	1	1	—	—	8	—	6	4	—	—	—	—
Singida	—	—	—	—	—	—	—	—	—	—	—	—
Tabora	13	3	—	—	6	—	18	6	6	3	—	—
Tanga	20	5	—	—	9	—	38	8	—	—	—	—
Tunduru	—	—	—	—	—	—	—	—	—	—	—	—
Tukuyu	4	1	—	—	9	—	8	—	—	—	—	—
Ujiji	—	—	—	—	—	—	6	—	—	—	—	—
Utete	—	—	—	—	2	—	—	—	—	—	—	—
TOTAL	202	34	206	23	162	28	316	65	17	5	903	155

* Not included in TABLE XIV.

The position as regards Tuberculosis is disquieting. What the situation is it is not possible to say, but from the table given below it is clear that there has been an increase within the last few years, and the total suffering from all forms was 333 with 70 deaths, as compared with 202 with 34. With increase of staff, we are getting more closely in touch with diseases of all varieties, but the persistency with which certain of our bigger centres return uniformly large numbers of cases indicates permanent foci, and Moshi has consistently shewn itself to be heavily infected. Dar-es-Salaam is a cosmopolitan area, and 22 cases for a large town is not out of the way, nor perhaps of 18 for Tabora, and 16 for Mwanza. The situation as regards Moshi and Pangani are different. The largest tribe in the vicinity of Moshi is the Chagga, and the climate in the slopes of Kilimanjaro, chiefly occupied by these people, is bleak and cold for most of the year, which naturally conduces to overcrowding in ill-ventilated, confined, over-heated huts. The difficulties in overcoming these tendencies are almost insurmountable at the present. The only way that holds out hope, and which it is proposed to put into execution, is to appoint a district Medical Officer for the purpose of getting into touch with the natives, carefully studying the question locally, and, if possible obtaining a Tuberculosis census. His services combined with the improvement of general district hygiene, for which a staff of African district sanitary inspectors will be in the process of training next year, and the introduction of a sanatorium system suitably situated, and modelled on the plan of a native village might possibly bring about segregation by moral suasion. The surroundings could be made pleasant, the patients' families might be allowed to live with them, those who were fit enough could be given facilities for plying their various trades; food, medical aid and particularly supervision would be provided.

It must however be borne in mind, that the combination of the psychology of the chronic phthisical patient, with the natural dislike of the home-loving native to be away from his friends and surroundings, are obstacles which might take years to overcome, before the benefits of sanatorium treatment, and a hygenic environment can be appreciated.

VENEREAL DISEASES AND YAWS.

Yaws.—Up to and including the year 1921, the total number of cases of Yaws treated with the recognised remedies, including Neosalvarsan, was 1,745.

During 1922 the use of Neosalvarsan was largely discontinued, and its place taken by Bismuth, in the form of the soluble salt Bismuth Sodium Potassium Tartrate. (*See* the Annual Medical Reports, 1921, *et seq.*) During 1922 and 1923, 6,739 cases were treated.

In the April of 1924, a circular was issued to all members of the Medical Staff, and another to the administrative staff; the former detailing the line of treatment to be adopted, and requesting that every endeavour should be made to combat this widespread menace to the health of the African population, and the latter asking Administrative Officers to help by spreading the information that treatment was available, and encouraging natives to take advantage of it.

Table I. is a comparative table, showing figures of all cases treated during the last 4¾ years, namely during the period for which statistics are available.

TABLE I.

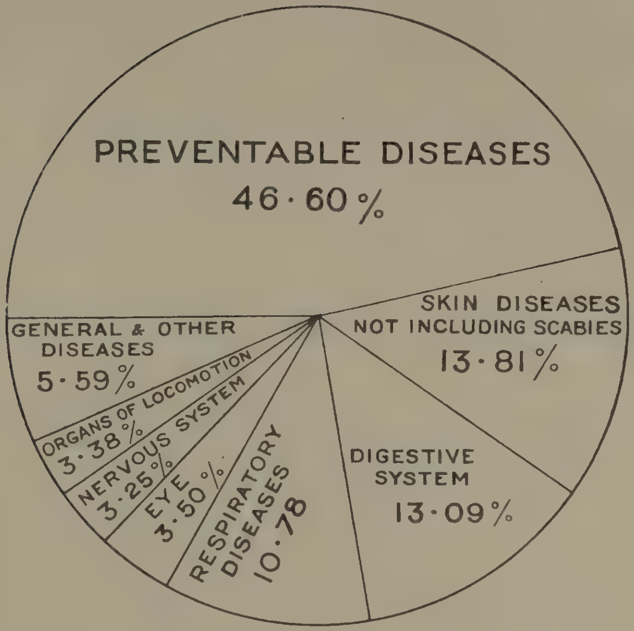
April—December	1920 ..	636
	1921 ..	1109
	1922 ..	3123
	1923 ..	3616
	1924 ..	20751
	TOTAL	29235

The above table gives some idea of the distribution of Yaws, but its density is difficult to estimate, and until further details are available it would be rash to attempt to arrive at any accurate conclusion in relation to its incidence in the various districts. It is however certainly widely disseminated, and, indeed, in some areas acquires serious proportions.

In the Rufiji District, headquarters Utete, with a population of 83,200, the number of cases treated up to the end of the year shews that over 10 % were infected.

GENERAL SYSTEMIC & PREVENTABLE DISEASES.

TOTAL CASES - 168,300.



TOTAL DEATHS - 679

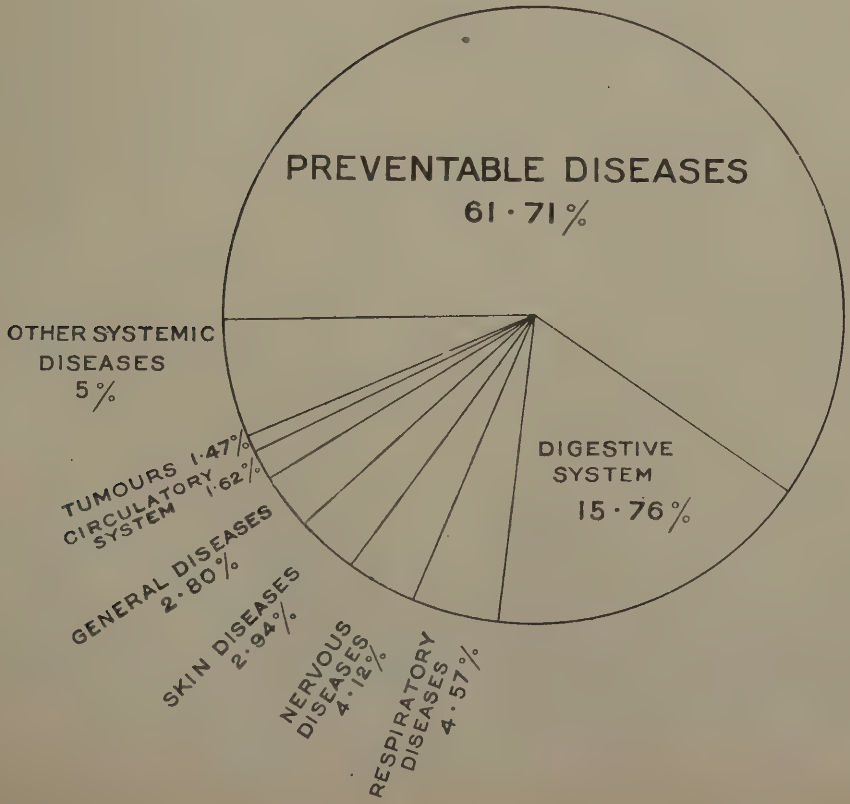


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TABLE II.

TOTAL CASES OF YAWS TREATED WITH THE SOLUBLE SALTS, BISMUTH SODIUM POTASSIUM TARTRATE, AND BISMUTH SODIUM TARTRATE, IN THE VARIOUS DISTRICTS AND SUB-DISTRICTS OF THE TERRITORY, ACCORDING TO MONTHS, DURING THE YEAR 1924.

YAWS, 1924.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL.
Arusha	15	15	23	14	16	7	6	2	19	25	17	36	195
Bagamoyo	23	17	8	13	20	43	53	52	61	46	59	59	454
Bukoba	—	4	3	3	—	1	6	2	—	3	—	—	22
,, District	—	—	—	—	—	—	—	—	—	—	—	126	126
Dar-es-Salaam (Sewa Hadji) ..	31	45	15	26	21	26	28	44	53	41	73	64	467
Dodoma	2	4	—	2	5	4	6	10	13	4	11	28	89
Iringa	1	1	4	1	1	2	2	—	2	8	8	9	39
Kondoa-Irangi	46	34	35	34	36	66	150	141	124	87	131	133	1,017
Kahama	—	—	—	—	—	2	4	4	2	12	1	4	29
Kigoma	23	65	23	17	29	20	32	42	57	64	37	66	475
Kilosa	1	—	—	1	—	—	—	2	3	3	7	6	23
Kilwa	18	18	27	28	36	21	10	14	24	29	79	337	641
Lushoto	—	—	3	6	10	6	4	—	3	1	1	4	38
Lindi	2	6	24	3	4	8	7	3	2	20	27	39	145
Mahenge	1	2	1	—	1		1	1	—	2	1	2	12
Mikindani	8	3	5	3	31	96	84	106	121	137	226	270	1,090
Moshi	27	23	26	34	39	37	77	120	46	88	37	175	729
Mwanza	4	1	9	4	13	14	24	35	38	61	41	73	317
Musoma	1	—	—	—	—	1	—	7	32	74	64	11	190
Morogoro	30	40	33	32	20	23	40	25	13	38	15	12	321
Mbulu	8	4	1	5	3	3	3	4	1	2	2	8	44
Nzega	—	1	2	3	2	—	—	—		—	—	10	18
Namanyere	6	6	12	7	12	11	9	9	9	13	5	7	106
Pangani	14	25	21	23	18	35	30	25	22	18	15	25	271
Singida	6	4	18	46	64	22	32	57	65	84	23	13	434
Songea	3	6	7	3	2	8	2	5	2	11	22	43	114
Shinyanga	—	—	—	—	—	—	—	—	—	3	—	—	3
Tabora	22	11	11	16	15	15	7	11	14	15	4	3	144
Tanga	53	73	31	23	19	27	35	26	16	42	31	33	409
Tunduru	35	17	2	3	4	6	6	7	8	18	25	28	159
Tukuyu	99	18	35	15	32	515	644	564	610	274	369	459	3,634
Utete	1	4	32	47	699	809	285	433	701	662	687	651	5,011
,, District	—	—	—	—	—	—	—	—	*	*	*	—	3,896
Ujiji	24	9	—	—	—	2	9	2	11	10	8	13	88
	504	456	411	413	1,152	1,830	1,596	1,753	2,072	1,895	2,026	2.747	20,751

* The Total of 3,896 cases were treated during September, October, and November.

TABLE III.

	Male.	Female.	Total.	Male. %	Female. %
Arusha	122	61	183	66·7	33·3
Bagamoyo	286	154	440	65·0	35·0
Bukoba	11	—	11	100·0	—
Dar-es-Salaam	184	68	252	73·1	26·9
Dodoma	19	8	27	70·4	29·6
Iringa	15	7	22	68·2	31·8
Kondoa-Irangi	311	151	462	67·4	32·6
Kahama	—	—	—	—	—
Kigoma	257	95	352	73·1	26·9
Kilosa	14	3	17	83·4	17·6
Kilwa	304	232	536	46·8	43·2
Lushoto	17	8	25	68·0	32·0
Lindi	70	35	105	66·7	33·3
Mahenge	2	3	5	40·0	60·0
Mikindani	592	402	994	59·6	40·4
Moshi	412	302	714	57·8	42·2
Mwanza	85	47	132	64·4	35·6
Musoma	82	72	154	53·3	46·7
Morogoro	181	82	263	68·5	31·5
Mbulu	22	4	26	84·7	15·3
Nzega	6	2	8	75·0	25·0
Namanyere	24	9	33	72·8	27·2
Pangani	175	65	240	72·2	27·8
Singida	9	14	23	39·1	60·9
Songea	26	27	53	49·0	51·0
Shinyanga	—	—	—	—	—
Tabora	2	1	3	66·7	33·3
Tanga	272	49	326	85·0	15·03
Tunduru	35	14	49	71·5	28·5
Tukuyu	1,491	1,609	3,100	48·5	51·5
Utete	2,499	2,479	4,978	50·2	49·8
Ujiji	76	10	86	88·4	11·6
	7,606	6,013	13,619	55·85	44·15

The facts as regard sex distribution are interesting. Table III indicates that where the indigent district populations have been tapped, as opposed to the floating populations of towns through which large numbers of male labourers, unaccompanied by their wives, pass en route to the various plantations, or at which similar conditions of sex discrepancy prevail in connection with any extensive works, the infection is equally distributed between males and females. Taking the figures for the general native population, male and female out-patients, returned from all districts, a total of 13,619 were treated of which 55·85 were males, and 44·15 females. Whereas in areas representing the former condition such, for example, as Tukuyu where of 3,100 cases treated 48·5 % were males, and 51·5 females, and at Utete of 4,978 cases 50·2 % were males, and 49·9 females.

It would appear therefore, that there are reasonable grounds for assuming that amongst district populations undisturbed to any extent, by external influences the sexes are equally affected.

The following dosage for Howards' Bismuth Sodium Tartrate has been recommended for uniform adoption. For infants and young adults, 1 to 3 grs ; for adult females 3 to 5 grs ; and for adult males 3 to 6 grs. These doses are administered intramuscularly.

The Administrative Officers have taken a keen interest in the application of this form of treatment, by encouraging the natives to attend at the different medical centres, and I acknowledge gratefully the assistance that has been accorded to me, and my staff, in this respect. I must, however, bring to particular notice the outstanding efforts of Mr. F. W. C. Morgans, Administrative Officer, Rufiji District, who has himself helped on occasions in administering the injections. As a consequence of his energy, and in urging his Sultans to send in cases, a total of 8,907 were treated in his district, 5,011 by the Compounder Mr. Amarnath Verma, during the year, at Utete and 3,896, during a matter of seven weeks, by Senior Sub-Assistant Surgeon Mr. Kelkar specially detailed for duty in that area, both the latter also deserve credit for their work. Amongst the other stations praiseworthy results have been achieved at Tukuyu, Mikindani and Kondoa-Irangi.

It is hoped that during 1925 a great advance will be made in the numbers dealt with. Yaws as a disease is not perhaps a very dangerous one, it is nevertheless incapacitating to a marked degree, and I am confident, if all concerned would make a determined effort, that a rapid reduction of this scourge might be expected, indeed it is felt that within no lengthy space of time, the number of cases will have been so diminished as to become an almost negligible epidemiological factor.

Syphilis.—Sequent on the increased interest and attention that has been drawn to the successful treatment of Yaws with Bismuth, a decided increase in the numbers of patients applying for relief from Syphilis, by the same method, has taken place. Every opportunity has been seized to push the treatment as far as possible in the more densely populated areas, and where this has not been possible all available means have been taken to bring in the patients for treatment. During December of this year a special Medical Officer was appointed to Bukoba for touring the district, and establishing centres for treatment, with Bismuth, leaving dressers, trained in detail, to carry on the work, and over whom he exercised periodic supervision. This system assumed immediate popularity and promises well. Some reflection of the results of propaganda and the demand for treatment might be observed from contrast with the figures recorded during previous years.

SYPHILIS.

	1921	1922	1923	1924
Total cases treated	1775	2145	2667	4348

Bearing on the above, the figures returned for Syphilis by the special Venereal Diseases Medical Officer for the first four months of 1925 were 1,738, and of the Senior Sub-Assistant Surgeon appointed for Yaws and Venereal Diseases work 361 for three months, a total of 2,099 for the Bukoba district alone.

Gonorrhœa.—2,067 cases. Of these 30 % were returned from Bukoba. This district also recorded 63 cases of Stricture and 29 of Fistulœ. Of the total number, 43, of Stricture operated upon in the Territory, 38 were dealt with at Bukoba.

From the above it is clear that the infection at Bukoba is heavy, and it will be necessary to devise more extended facilities for specialised treatment.

In conclusion be it stated that it is hoped ultimately to establish in every district the organisations mentioned below for Medical, Maternity, and Sanitation work.

(*a*) District Medical Officers.
(*b*) European Sanitary Superintendents.
(*c*) District African Sanitary Inspectors.
(*d*) Venereal Diseases and Yaws mobile clinics.
(*e*) Maternity and Child Welfare centres under the supervision of European Nursing Sisters.
(*f*) Qualified Dispensers in charge of district Dispensaries.
(*g*) Tuberculosis Sanatoria, at or near our larger towns, as described under Tuberculosis, for purposes of segregation and treatment.
(*h*) Mobile Clinics for Surgical work, including its specialised branches, to follow later.

RECOMMENDATIONS.

1. An increase in the staff of European Sanitary Superintendents in numbers sufficient to meet requirements of the different districts, and for the purpose of supervising the work of the African district staff of Sanitary Inspectors, is a necessity that must be kept in mind and facilitated at an early moment. To get the best out of the organisation mentioned European supervision is essential.

2. Medical Officers for special duty connected with certain of the more important infective diseases. The appointment of a special Medical Officer for anti-syphilitic work in the Bukoba district during December has shewn most encouraging results, and an extension of this system whereby the Medical Officer actually tours and works over each area will, I am confident, produce far more effective results than work at one or two larger stationary clinics however well equipped. I do not suggest that the latter are not necessary but the itinerant system is more effective for mass treatment. The Africans in certain districts are so apathetic, especially in the case of a chronic disease such as Syphilis, for which a comparatively long course of treatment is required, that they refrain from applying for treatment even though the distance to be covered in seeking it is trifling.

3. Permanent well built hospitals are still required at several stations.

4. Registration of births and deaths, in all classes, in all townships.

5. A larger percentage of unmarried Medical Officers should in future be selected for duties connected with district work.

6. Extension of piped water in all townships, the provision of well built covered wells with pumps, in all densely populated native centres where clean water supplies are not available.

7. Increased application of drainage, generally, and specially of swamps at and near all townships.

TABLE XI.

Total Numbers of Fresh Cases, In-Patients and Out-Patients, for All Diseases during the Year 1924.

	Arusha.		Bagamoyo.		Bukoba.		Dar-es-Salaam.				Dodoma.		Iringa.	
							Europ. Hosp.		Sewa H. Hosp.					
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Infective Diseases—														
Anthrax	—	—	—	—	—	—	—	—	—	—	1	—	—	—
Beri-Beri	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-Spinal Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chicken-pox	61	—	—	—	100	—	—	—	4	—	—	—	5	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cancrum Oris	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dengue	—	—	—	—	—	—	30	—	1	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery (Unclassified)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Amœbic	10	1	—	—	32	—	4	—	4	2	10	—	16	1
,, Bacillary	—	—	—	—	—	—	8	—	1	—	5	—	—	—
Endocarditis, Infective	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas	—	—	—	—	—	—	1	—	—	—	—	—	—	—
Goitre Endemic	1	—	—	—	1	—	1	—	—	—	—	—	—	—
Gangosa	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gonorrhœa	74	—	38	—	607	—	1	—	185	—	44	—	26	—
Influenza	98	—	—	—	57	—	50	—	14	—	—	—	—	—
Kala Azar	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Leprosy (Unclassified)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Anæsthetic	1	—	—	—	4	—	—	—	3	—	—	—	—	—
,, Nodular	—	—	—	—	7	—	—	—	—	—	—	—	—	—
,, Mixed	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malaria (Unclassified)	306	—	331	—	1,313	2	240	1	6,569	5	637	—	690	—
,, Tertian	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Quartan	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Æstivo, Autumnal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Chronic	3	—	2	—	29	—	—	—	44	—	4	—	—	—
,, Blackwater	1	1	—	—	1	—	4	—	2	—	3	—	1	—
Measles	1	—	—	—	13	—	—	—	7	—	1	—	3	—
Mumps	—	—	—	—	—	—	—	—	1	—	—	—	6	—
Carried forward	556	2	371	—	2,164	2	339	1	6,835	7	705	—	747	1

TABLE XI.—*continued.*

TOTAL NUMBERS OF FRESH CASES, IN-PATIENTS AND OUT-PATIENTS, FOR ALL DISEASES DURING THE YEAR 1924—*continued.*

	Kahama.		Kigoma.		Kilosa.		Kilwa.		Kondoa-Irangi.		Lindi.		Lushoto.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Infective Diseases—														
Anthrax	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Beri-Beri	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-Spinal Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chicken-pox	8	—	3	—	—	—	2	—	—	—	1	—	—	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cancrum Oris	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Dengue	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery (Unclassified)	—	—	—	—	73	3	8	—	—	—	—	—	—	—
,, Amœbic	—	—	2	—	—	—	—	—	2	—	—	—	7	—
,, Bacillary	—	—	5	1	—	—	—	—	39	—	—	—	—	—
Endocarditis, Infective	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Erysipelas	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Goitre Endemic	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Gangosa	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gonorrhœa	53	—	74	—	11	—	41	—	71	—	11	—	8	—
Influenza	—	—	—	—	—	—	—	—	—	—	340	—	62	—
Kala Azar	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Leprosy (Unclassified)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Anæsthetic	—	—	2	1	—	—	—	—	3	1	—	—	—	—
,, Nodular	—	—	—	—	—	—	—	—	1	—	—	—	—	—
,, Mixed	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malaria (Unclassified)	188	1	318	—	421	—	168	1	800	—	496	—	54	1
,, Tertian	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Quartan	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Æstivo, Autumnal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Chronic	—	—	20	—	96	1	—	—	44	—	—	—	61	—
,, Blackwater	—	—	1	1	2	1	1	—	—	—	—	—	—	—
Measles	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Mumps	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Carried forward	250	1	428	3	603	5	220	1	961	1	848	—	192	1

TABLE XI.—*continued.*

TOTAL NUMBERS OF FRESH CASES, IN-PATIENTS AND OUT-PATIENTS, FOR ALL DISEASES DURING THE YEAR 1924—*continued.*

	Mafia.		Mahenge.		Mbulu.		Mikindani.		Morogoro.		Moshi.		Musoma.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Infective Diseases—														
Anthrax	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Beri-Beri	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-Spinal Fever	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Chicken-pox	—	—	1	—	—	—	—	—	8	—	8	—	1	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cancrum Oris	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dengue	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery (Unclassified)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Amœbic	5	—	—	—	2	—	6	—	101	5	33	—	—	—
,, Bacillary	—	—	8	—	—	—	—	—	—	—	—	—	23	—
Endocarditis, Infective	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Goitre Endemic	—	—	—	—	2	—	—	—	2	—	1	—	—	—
Gangosa	—	—	—	—	—	—	—	—	—	—	15	—	—	—
Gonorrhœa	9	—	14	—	15	—	25	—	30	—	47	—	13	—
Influenza	—	—	31	—	6	—	59	—	—	—	1	—	46	—
Kala Azar	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Leprosy (Unclassified)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Anæsthetic	—	—	27	—	—	—	—	—	—	—	—	—	—	—
,, Nodular	—	—	—	—	1	—	—	—	1	—	4	—	—	—
,, Mixed	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malaria (Unclassified)	103	—	276	—	180	—	70	—	357	—	3,471	5	223	—
,, Tertian	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Quartan	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Æstivo, Autumnal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Chronic	—	—	3	—	9	—	2	—	2	—	—	—	—	—
,, Blackwater	—	—	1	1	—	—	—	—	1	—	7	—	1	—
Measles	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Mumps	—	—	—	—	2	—	—	—	—	—	4	—	—	—
Carried forward	118	—	361	1	218	—	162	—	502	5	3,591	5	308	1

TABLE XI.—*continued.*

Total Numbers of Fresh Cases, In-Patients and Out-Patients, for All Diseases during the Year 1924—*continued.*

	Mwanza.		Namanyere.		Pangani.		Shinyanga.		Singida.		Songea.		Tabora.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Infective Diseases—														
Anthrax	1	1	—	—	—	—	—	—	5	1	—	—	—	—
Beri-Beri	—	—	—	—	7	1	—	—	—	—	—	—	—	—
Cerebro-Spinal Fever	1	—	—	—	1	—	—	—	—	—	1	—	—	—
Chicken-pox	—	—	1	—	—	—	—	—	4	—	—	—	4	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cancrum Oris	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dengue	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery (Unclassified)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Amœbic	2	—	7	—	7	—	3	—	12	—	11	—	36	2
,, Bacillary	16	—	8	—	2	—	2	—	—	—	—	—	—	—
Endocarditis, Infective	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	1	—	—	—	—	—	—	—	—	—	—	—	7	1
Erysipelas	—	—	2	—	—	—	—	—	1	—	—	—	1	—
Goitre Endemic	—	—	—	—	—	—	—	—	—	—	1	—	—	—
Gangosa	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gonorrhœa	89	—	29	—	25	—	11	—	38	—	80	—	124	—
Influenza.	15	—	74	—	1	—	4	—	45	—	1,443	1	49	—
Kala Azar	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Leprosy (Unclassified)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Anæsthetic	2	—	—	—	3	—	—	—	—	—	—	—	—	—
,, Nodular	1	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Mixed	—	—	—	—	—	—	—	—	—	—	1	—	1	—
Malaria (Unclassified)	624	3	396	—	165	—	268	—	101	—	494	1	969	4
,, Tertian	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Quartan	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Æstivo, Autumnal	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Chronic	14	—	—	—	15	—	9	—	—	—	—	—	2	—
,, Blackwater	1	1	—	—	—	—	—	—	—	—	—	—	2	—
Measles	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mumps	—	—	—	—	1	—	—	—	—	—	—	—	124	1
Carried forward	767	5	517	—	227	1	297	—	206	1	2,031	2	1,319	8

TABLE XI.—*continued.*

TOTAL NUMBERS OF FRESH CASES, IN-PATIENTS AND OUT-PATIENTS, FOR ALL DISEASES DURING THE YEAR 1924—*continued.*

	Tanga.		Tukuyu.		Tunduru.		Ujiji.		Utete.		TOTAL.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Infective Diseases—												
Anthrax	—	—	—	—	—	—	—	—	—	—	7	2
Beri-Beri	27	—	—	—	—	—	—	—	—	—	35	1
Cerebro-Spinal Fever	1	1	—	—	—	—	—	—	—	—	5	2
Chicken-pox	1	—	—	—	—	—	—	—	—	—	212	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—
Cancrum Oris	—	—	—	—	—	—	—	—	—	—	1	—
Dengue	5	—	—	—	—	—	—	—	—	—	36	—
Diphtheria	1	—	—	—	—	—	—	—	—	—	1	—
Dysentery (Unclassified)	—	—	—	—	—	—	—	—	—	—	81	3
,, Amœbic	8	—	1	—	2	—	—	—	—	—	323	11
,, Bacillary	4	—	18	—	—	—	—	—	30	—	169	1
Endocarditis, Infective	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	—	—	—	—	—	—	—	—	—	—	9	1
Erysipelas	—	—	—	—	—	—	—	—	—	—	6	—
Goitre Endemic	—	—	—	—	—	—	—	—	—	—	9	—
Gangosa	—	—	—	—	—	—	—	—	—	—	15	—
Gonorrhœa	142	—	36	—	19	—	41	—	36	—	2,067	—
Influenza	136	—	124	6	—	—	84	—	57	—	2,796	7
Kala Azar	—	—	—	—	—	—	—	—	—	—	—	—
Leprosy (Unclassified)	—	—	—	—	—	—	—	—	—	—	—	—
,, Anæsthetic	—	—	—	—	—	—	—	—	—	—	45	2
,, Nodular	—	—	14	—	2	—	4	—	—	—	37	—
,, Mixed	—	—	—	—	—	—	—	—	—	—	—	—
Malaria (Unclassified)	795	1	741	—	58	—	223	—	293	—	22,338	25
,, Tertian	—	—	—	—	—	—	—	—	—	—	—	—
,, Quartan	—	—	—	—	—	—	—	—	—	—		—
,, Æstivo, Autumnal	—	—	—	—	—	—	—	—	—	—	—	—
,, Chronic	10	—	—	—	—	—	10	—	15	—	394	1
,, Blackwater	—	—	1	—	—	—	—	—	—	—	30	5
Measles	—	—	—	—	—	—	—	—	—	—	27	—
Mumps	1	—	25	—	—	—	—	—	—	—	165	1
Carried forward	1,131	2	960	6	81	—	362	—	431	—	28,808	62

TABLE XI.—*continued.*

TOTAL NUMBERS OF FRESH CASES, IN-PATIENTS AND OUT-PATIENTS, FOR ALL DISEASES DURING THE YEAR 1924—*continued.*

	Arusha.		Bagamoyo.		Bukoba.		Dar-es-Salaam.				Dodoma.		Iringa.	
							Europ.	Hosp.	Sewa H.	Hosp.				
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Brought forward ..	556	2	371	—	2,164	2	339	1	6,835	7	705	—	747	1
Infective Diseases (continued)—														
Mycetoma ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paratyphoid ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pellagra ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Phlebotamus Fever ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Plague ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia, Acute Lobar ..	7	—	—	—	11	6	2	—	64	11	30	5	4	—
Poliomyelitis Anterior Acuta ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pyœmia ..	—	—	—	—	—	—	—	—	—	—	1	—	—	—
Pyrexia, of uncertain origin ..	59	—	—	—	1	1	21	—	318	—	—	—	—	—
Rabies ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Relapsing Tick Fever ..	—	—	—	—	—	—	13	—	18	—	—	—	28	—
Rheumatic Fever ..	—	—	1	—	2	—	—	—	1	—	—	—	3	—
Septicæmia ..	1	—	—	—	—	—	—	—	3	3	—	—	1	1
Small-pox ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Syphilis (Unclassified) ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Primary ..	3	—	15	—	8	—	3	—	47	—	56	—	43	—
,, Secondary ..	9	—	15	—	671	—	4	—	92	—	50	1	6	—
,, Tertiary ..	2	—	—	—	—	—	2	—	—	—	—	—	—	—
,, Inherited ..	—	—	—	—	33	—	—	—	81	3	5	—	—	—
Tetanus ..	—	—	—	—	1	—	—	—	2	2	—	—	—	—
Trypanosomiasis Rhodesiensis ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Gambiensis ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis, Pulmonary ..	4	3	2	1	6	2	—	—	22	3	6	1	1	—
,, Other Forms ..	3	2	—	—	—	—	3	—	—	—	—	—	—	—
Undulant Fever ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Yaws ..	163	—	454	—	23	—	—	—	466	—	89	—	19	—
Yellow Fever ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Diseases ..	3	—	—	—	—	—	8	—	—	—	—	—	76	—
Intoxications ..	—	—	—	—	—	—	—	—	—	—	1	—	—	—
General Diseases ..	14	—	131	—	7	2	91	—	212	3	29	—	21	—
Carried forward ..	824	7	989	1	2,927	13	486	1	8,161	32	972	7	949	2

TABLE XI.—*continued.*

TOTAL NUMBERS OF FRESH CASES, IN-PATIENTS AND OUT-PATIENTS, FOR ALL DISEASES DURING THE YEAR 1924—*continued.*

	Kahama.		Kigoma.		Kilosa.		Kilwa.		Kondoa-Irangi.		Lindi.		Lushoto.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Brought forward ..	250	1	428	3	603	5	220	1	961	1	848	—	192	1
Infective Diseases (continued)—														
Mycetoma	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Paratyphoid	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Phlebotamus Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Plague	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia, Acute Lobar	6	2	8	2	3	1	4	—	13	1	2	—	3	1
Poliomyelitis Anterior Acuta ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pyæmia	—	—	5	—	4	—	—	—	1	1	—	—	—	—
Pyrexia, of uncertain origin.. ..	—	—	11	—	1	—	—	—	—	—	—	—	—	—
Rabies	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Relapsing Tick Fever	—	—	9	—	—	—	—	—	—	—	—	—	—	—
Rheumatic Fever	—	—	—	—	2	—	—	—	—	—	—	—	3	—
Septicæmia	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Small-pox	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Syphilis (Unclassified)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Primary	17	—	74	—	4	—	5	—	22	—	28	—	4	—
,, Secondary	2	—	48	—	27	—	11	—	43	—	—	—	26	—
,, Tertiary	—	—	—	—	—	—	24	—	16	—	—	—	—	—
,, Inherited	3	1	—	—	5	—	—	—	6	—	—	—	—	—
Tetanus	—	—	—	—	—	—	—	—	1	1	—	—	—	—
Trypanosomiasis Rhodesiensis ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Gambiensis ..	—	—	8	2	—	—	—	—	—	—	—	—	—	—
Tuberculosis, Pulmonary	1	—	8	4	2	2	1	1	10	—	—	—	12	—
,, Other Forms	—	—	—	—	—	—	—	—	3	—	—	—	—	—
Undulant Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Yaws	29	1	479	1	22	—	651	—	1,013	—	145	1	41	—
Yellow Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Intoxications	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Diseases	1	—	16	—	68	1	11	—	12	1	23	3	12	—
Carried forward	310	5	1,095	12	741	9	927	2	2,101	5	1,046	4	294	3

TABLE XI.—*continued.*

TOTAL NUMBERS OF FRESH CASES, IN-PATIENTS AND OUT-PATIENTS, FOR ALL DISEASES DURING THE YEAR 1924—*continued.*

	Mafia.		Mahenge.		Mbulu.		Mikindani.		Morogoro.		Moshi.		Musoma.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Brought forward ..	118	—	361	1	218	—	162	—	502	5	3,591	5	308	1
Infective Diseases (continued)—														
Mycetoma	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paratyphoid	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Phlebotamus Fever	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Plague	—	—	—	—	—	—	—	—	—	—	—	—	17	2
Pneumonia, Acute Lobar	—	—	3	—	3	1	2	—	4	2	11	2	—	—
Poliomyelitis Anterior Acuta ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pyæmia	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pyrexia, of uncertain origin.. ..	—	—	11	—	—	—	—	—	—	—	21	—	—	—
Rabies	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Relapsing Tick Fever	—	—	2	—	—	—	—	—	1	—	—	—	4	—
Rheumatic Fever	—	—	—	—	1	—	—	—	—	—	2	—	—	—
Septicæmia	—	—	—	—	—	—	—	—	1	1	—	—	—	—
Small-pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Syphilis (Unclassified), ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Primary	8	—	15	—	11	—	1	—	23	—	—	—	157	—
,, Secondary	—	—	10	—	—	—	55	—	162	—	189	—	25	—
,, Tertiary	—	—	—	—	—	—	4	—	5	—	—	—	277	—
,, Inherited	—	—	—	—	—	—	—	—	2	—	—	—	—	—
Tetanus	—	—	—	—	—	—	—	—	—	—	2	—	—	—
Trypanosomiasis Rhodesiensis ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Gambiensis ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis, Pulmonary	1	1	5	2	4	—	3	—	18	10	69	2	—	—
,, Other Forms	1	—	—	—	—	—	—	—	1	—	—	—	—	—
Undulant Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	—	1	—	—	—	—	—	—	—	3	—	—	—
Yaws	—	—	11	—	43	—	1,090	—	322	—	732	—	36	—
Yellow Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Diseases	—	—	15	—	—	—	—	—	—	—	—	—	1	—
Intoxications	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Diseases	1	—	7	—	31	—	6	—	33	—	55	1	10	—
Carried forward	129	1	441	3	311	1	1,323	—	1,075	18	4,675	10	835	3

TABLE XI.—*continued.*

Total Numbers of Fresh Cases, In-Patients and Out-Patients, for All Diseases during the Year 1924—*continued.*

	Mwanza.		Namanyere.		Pangani.		Shinyanga.		Singida.		Songea.		Tabora.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Brought forward	767	5	517	—	227	1	297	—	206	1	2,031	2	1,319	8
Infective Diseases (continued)—														
Mycetoma	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paratyphoid	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Phlebotamus Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Plague	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia, Acute Lobar	37	7	36	2	3	2	5	—	1	1	7	1	17	3
Poliomyelitis Anterior Acuta ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pyœmia	—	—	—	—	—	—	—	—	—	—	1	—	—	—
Pyrexia, of uncertain origin.. ..	—	—	—	—	34	—	—	—	—	—	—	—	—	—
Rabies	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Relapsing Tick Fever	7	—	24	—	—	—	3	—	1	—	—	—	8	—
Rheumatic Fever	1	—	11	—	—	—	—	—	—	—	—	—	3	—
Septicæmia	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Small-pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Syphilis (Unclassified)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Primary	121	—	7	—	5	—	10	—	53	—	72	—	18	—
,, Secondary	865	1	69	—	24	—	34	—	41	—	—	—	67	3
,, Tertiary	18	1	—	—	—	—	—	—	1	—	—	—	4	—
,, Inherited	—	—	3	—	2	—	6	—	5	—	—	—	39	4
Tetanus	—	—	—	—	3	1	—	—	—	—	—	—	1	—
Trypanosomiasis Rhodesiensis ..	—	—	—	—	—	—	—	—	—	—	—	—	1	—
,, Gambiensis ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis, Pulmonary	16	7	—	—	41	8	3	—	—	—	6	4	18	6
,, Other Forms	—	—	—	—	—	—	—	—	—	—	—	—	6	3
Undulant Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Yaws	328	—	106	—	275	—	4	—	434	2	114	—	144	2
Yellow Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Diseases	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Intoxications	—	—	—	—	—	—	1	1	—	—	—	—	2	—
General Diseases	115	4	12	—	29	—	8	—	6	—	20	—	34	—
Carried forward	2,276	25	785	2	643	12	371	1	749	4	2,252	7	1,681	29

TABLE XI.—*continued.*

TOTAL NUMBERS OF FRESH CASES, IN-PATIENTS AND OUT-PATIENTS, FOR ALL DISEASES DURING THE YEAR 1924—*continued.*

	Tanga.		Tukuyu.		Tunduru.		Ujiji.		Utete.		TOTAL.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Brought forward	1,131	2	960	6	81	—	362	—	431	—	28,808	62
Infective Diseases (continued)—												
Mycetoma	—	—	—	—	—	—	—	—	—	—	1	—
Paratyphoid	—	—	—	—	—	—	—	—	—	—	—	—
Pellagra	—	—	—	—	—	—	—	—	—	—	—	—
Phlebotamus Fever	1	1	—	—	—	—	—	—	—	—	2	1
Plague	—	—	—	—	—	—	—	—	—	—	17	2
Pneumonia, Acute Lobar	65	8	12	4	2	—	11	—	9	1	385	63
Poliomyelitis Anterior Acuta ..	—	—	—	—	—	—	—	—	—	—	—	—
Pyæmia	—	—	—	—	—	—	—	—	—	—	12	1
Pyrexia, of uncertain origin	1	—	10	1	4	—	—	—	—	—	493	2
Rabies	—	—	—	—	—	—	—	—	—	—	—	—
Relapsing Tick Fever	2	—	24	—	—	—	—	—	4	—	148	—
Rheumatic Fever	1	—	—	—	—	—	—	—	—	—	31	—
Septicæmia	—	—	—	—	—	—	—	—	—	—	7	6
Small-pox	—	—	—	—	—	—	—	—	—	—	1	—
Syphilis (Unclassified)	—	—	—	—	—	—	—	—	—	—	—	—
,, Primary	50	—	10	—	5	—	13	—	18	—	926	—
,, Secondary	51	—	40	—	9	—	4	—	12	—	2,661	5
,, Tertiary	14	2	—	—	—	—	120	—	—	—	487	3
,, Inherited	46	—	37	—	—	—	—	—	1	—	274	8
Tetanus	—	—	—	—	—	—	—	—	—	—	10	4
Trypanosomiasis Rhodesiensis ..	—	—	—	—	—	—	—	—	—	—	1	—
,, Gambiensis ..	—	—	—	—	—	—	—	—	—	—	8	2
Tuberculosis, Pulmonary	38	8	8	—	—	—	6	—	—	—	311	65
,, Other Forms	—	—	—	—	—	—	—	—	—	—	—	—
Undulant Fever	—	—	—	—	—	—	—	—	—	—	17	5
Whooping Cough	8	—	—	—	—	—	14	—	—	—	28	—
Yaws	410	—	3,559	1	159	—	91	—	5,011	—	16,463	8
Yellow Fever	—	—	—	—	—	—	—	—	—	—	—	—
Other Diseases	—	—	—	—	—	—	—	—	—	—	104	—
Intoxications	—	—	—	—	—	—	—	—	—	—	4	1
General Diseases	67	3	36	1	16	—	5	—	58	—	1,197	19
Carried forward	1,885	24	4,696	13	276	—	626	—	5,544	1	52,396	257

TABLE XI.—*continued.*

Total Numbers of Fresh Cases, In-Patients and Out-Patients, for All Diseases during the Year 1924—*continued.*

	Arusha.		Bagamoyo.		Bukoba.		Dar-es-Salaam.				Dodoma.		Iringa.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Europ. Hosp.		Sewa H. Hosp.		Cases.	Deaths.	Cases.	Deaths.
							Cases.	Deaths.	Cases.	Deaths.				
Brought forward ..	824	7	989	1	2,927	13	486	1	8,161	32	972	7	949	2
Local Diseases—														
Diseases of Nervous System ..	54	—	85	—	117	1	50	—	1,614	—	181	—	626	—
,, ,, Eye	286	—	216	—	523	—	22	—	725	—	384	—	428	—
,, ,, Ear	53	—	77	—	99	—	49	—	227	—	81	—	185	—
,, ,, Nose	—	—	5	—	1	—	4	—	8	—	4	—	—	—
,, ,, Circulatory System ..	3	—	6	—	3	—	1	—	12	2	—	—	1	—
,, ,, Respiratory ,, ..	763	2	495	2	899	—	122	1	2,437	3	635	—	1,898	1
,, ,, Digestive ,, ..	578	1	504	1	1,361	3	169	1	2,836	3	768	4	1,486	—
,, ,, Lymphatic ,, ..	11	—	24	—	32	—	9	—	87	—	18	—	30	—
,, ,, Urinary ,, ..	11	—	11	—	7	—	7	—	9	1	8	—	—	—
,, ,, Generative ,,														
Male Organs	59	1	45	—	173	1	9	—	279	—	28	—	39	—
Female ,,	21	1	7	—	17	—	139	—	43	2	10	—	42	—
,, ,, Organs of Locomotion ..	164	—	168	—	417	—	35	—	138	1	73	—	786	—
,, ,, Connective Tissue ..	52	—	116	—	122	—	26	—	745	1	102	—	79	—
,, ,, Skin	740	—	1,064	—	1,847	—	99	—	2,305	4	507	—	1,568	1
Injuries	422	3	305	2	601	3	120	—	2,015	2	517	2	1,155	2
Tumours	8	1	—	—	14	1	3	—	11	3	14	—	—	—
Malformations	1	—	—	—	1	—	—	—	—	—	—	—	—	—
Poisons	1	—	—	—	7	—	7	2	—	—	2	—	—	—
Animal Parasites	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Protozoa	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Trematoda	—	—	—	—	—	—	1	—	12	—	1	—	—	—
Cestoda	2	—	9	—	90	—	5	—	54	1	16	—	35	—
Nematoda	668	2	214	2	52	—	10	—	238	17	5	—	1	—
Elephantiasis, Leg	—	—	32	—	—	—	—	—	1	1	—	—	—	—
,, Scrotum	—	—	6	—	10	—	—	—	—	—	—	—	1	—
,, Other	—	—	1	—	—	—	1	—	24	1	—	—	—	—
Insecta	1	—	—	—	—	—	7	—	2	—	—	—	—	—
Tunga Penetrans	7	—	128	—	—	—	2	—	52	—	24	—	72	—
Total	4,729	18	4,507	8	9,320	22	1,383	5	22,035	74	4,350	13	9,381	6

TABLE XI.—*continued.*

Total Numbers of Fresh Cases, In-Patients and Out-Patients, for All Diseases during the Year 1924—*continued.*

	Kahama.		Kigoma.		Kilosa.		Kilwa.		Kondoa-Irangi.		Lindi.		Lushoto.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Brought forward ..	310	5	1,095	12	741	9	927	2	2,101	5	1,046	4	294	3
Local Diseases—														
Diseases of Nervous System ..	22	—	21	2	24	1	80	1	100	1	161	3	142	—
,, ,, Eye	19	—	47	—	74	—	90	—	192	—	183	—	21	—
,, ,, Ear	8	—	32	—	44	—	50	—	133	—	32	—	47	—
,, ,, Nose	1	—	11	—	1	—	5	—	1	—	—	—	12	—
,, ,, Circulatory System ..	—	—	1	—	3	—	1	—	14	—	5	—	6	—
,, ,, Respiratory ,, ..	134	—	290	—	363	—	253	—	820	2	397	—	352	1
,, ,, Digestive ,, ..	123	—	287	2	425	1	352	—	623	—	523	1	529	—
,, ,, Lymphatic ,, ..	—	—	3	—	9	—	12	—	24	—	52	—	5	—
,, ,, Urinary ,, ..	—	—	1	—	—	—	2	1	9	—	3	—	8	—
,, ,, Generative ,,														
Male Organs	2	—	5	—	29	—	12	—	11	—	64	—	13	—
Female ,,	—	—	24	—	4	—	4	1	26	—	1	—	4	—
,, ,, Organs of Locomotion ..	47	—	211	—	8	—	124	—	367	—	147	—	18	—
,, ,, Connective Tissue ..	20	—	53	—	25	—	81	—	67	—	130	—	20	—
,, ,, Skin	100	—	293	—	1,297	—	871	1	690	—	671	—	314	—
Injuries	188	1	475	1	213	—	285	—	293	1	357	3	286	—
Tumours	—	—	2	1	—	—	—	—	4	—	1	—	—	—
Malformations	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Poisons	2	—	4	—	2	—	1	—	4	—	—	—	1	—
Animal Parasites	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Protozoa	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Trematoda	—	—	—	—	—	—	6	—	—	—	—	—	—	—
Cestoda	—	—	8	—	—	—	—	—	20	—	—	—	24	—
Nematoda	5	1	29	8	207	—	203	1	74	—	14	2	36	1
Elephantiasis, Leg	—	—	4	—	1	—	—	—	4	—	2	—	1	—
,, Scrotum	—	—	2	—	—	—	3	—	1	—	1	—	—	—
,, Other	—	—	—	—	—	—	—	—	—	—	—	—	1	—
Insecta	—	—	—	—	—	—	1	—	—	—	12	—	—	—
Tunga Penetrans	1	—	6	—	1	—	61	—	6	—	—	—	1	—
TOTAL	982	7	2,904	26	3,471	11	3,424	7	5,585	9	3,802	13	2,135	5

TABLE XI.—*continued.*

Total Numbers of Fresh Cases, In-Patients and Out-Patients, for All Diseases during the Year 1924—*continued.*

	Mafia.		Mahenge.		Mbulu.		Mikindani.		Morogoro.		Moshi.		Musoma.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Brought forward ..	129	1	441	3	311	1	1,323	—	1,075	18	4,675	10	835	3
Local Diseases—														
Diseases of Nervous System ..	34	—	52	1	201	—	101	—	88	6	68	3	122	—
,, ,, Eye	11	—	61	—	67	—	192	—	73	—	199	—	69	—
,, ,, Ear	8	—	23	—	19	—	44	—	17	—	109	—	40	—
,, ,, Nose	—	—	4	—	—	—	5	—	—	—	18	—	2	—
,, ,, Circulatory System ..	—	—	1	—	2	—	1	—	2	—	19	1	—	—
,, ,, Respiratory ,, ..	61	—	345	—	364	1	218	—	295	3	799	4	204	1
,, ,, Digestive ,, ..	98	1	310	—	295	2	241	1	751	51	1,443	—	260	3
,, ,, Lymphatic ,, ..	—	—	8	—	—	—	15	—	11	—	22	—	7	—
,, ,, Urinary ,, ..	—	—	2	—	3	—	—	—	—	—	5	—	1	—
,, ,, Generative ,,														
Male Organs	5	—	13	—	5	—	14	—	12	—	25	—	2	—
Female ,,	—	—	8	—	7	—	—	—	—	—	36	—	11	—
,, ,, Organs of Locomotion ..	11	—	132	—	22	—	38	—	151	—	180	—	19	1
,, ,, Connective Tissue ..	3	—	12	—	7	1	110	—	43	2	114	1	52	—
,, ,, Skin	44	—	272	—	485	—	972	—	637	6	1,833	1	65	—
Injuries	107	1	373	—	230	1	351	—	233	5	1,141	3	233	2
Tumours	—	—	—	—	—	—	—	—	4	—	23	1	1	—
Malformations	—	—	—	—	2	—	—	—	—	—	1	—	—	—
Poisons	—	—	1	—	—	—	—	—	2	—	—	—	1	—
Animal Parasites	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Protozoa	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Trematoda	—	—	—	—	—	—	33	—	—	—	—	—	2	—
Cestoda	—	—	10	—	—	—	—	—	8	—	540	1	3	—
Nematoda	—	—	2	—	76	—	31	—	78	11	243	1	13	1
Elephantiasis, Leg	—	—	—	—	—	—	—	—	1	—	—	—	1	—
,, Scrotum	—	—	—	—	—	—	—	—	—	—	—	—	1	—
,, Other	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Insecta	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Tunga Penetrans	—	—	3	—	26	—	94	—	—	—	8	—	—	—
Total	511	3	2,073	4	2,122	6	3,783	1	3,482	102	11,502	26	1,944	11

TABLE XI.—*continued.*

TOTAL NUMBERS OF FRESH CASES, IN-PATIENTS AND OUT-PATIENTS, FOR ALL DISEASES DURING THE YEAR 1924—*continued.*

	Mwanza.		Namanyere.		Pangani.		Shinyanga.		Singida.		Songea.		Tabora.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Brought forward ..	2,276	25	785	2	643	12	371	1	749	4	2,252	7	1,681	29
Local Diseases—														
Diseases of Nervous System ..	315	6	372	—	39	1	79	—	44	—	25	—	119	1
,, ,, Eye	166	—	253	—	63	—	47	—	94	—	205	—	219	—
,, ,, Ear	100	—	61	—	22	—	38	—	36	—	115	—	73	—
,, ,, Nose	7	—	2	—	—	—	4	—	3	—	—	—	14	—
,, ,, Circulatory System ..	7	1	2	—	26	1	4	2	1	—	3	—	10	2
,, ,, Respiratory ,, ..	511	—	827	—	220	1	403	2	187	—	582	4	268	2
,, ,, Digestive ,, ..	858	9	577	—	253	3	426	1	210	—	755	2	1,745	6
,, ,, Lymphatic ,, ..	18	—	32	1	10	—	8	—	7	—	5	—	60	—
,, ,, Urinary ,, ..	10	1	3	—	9	—	—	—	2	1	—	—	11	2
,, ,, Generative ,,														
Male Organs	82	—	13	—	19	—	10	—	4	—	31	—	69	1
Female ,,	17	2	66	1	10	—	3	—	2	—	3	—	30	—
,, ,, Organs of Locomotion ..	158	—	129	—	39	—	132	—	49	—	309	—	517	—
,, ,, Connective Tissue ..	173	—	70	—	32	—	62	—	40	—	37	—	89	1
,, ,, Skin	1,154	1	600	—	599	—	552	—	430	—	1,433	1	482	—
Injuries	616	3	468	1	250	8	376	—	292	3	145	—	1,407	5
Tumours	14	1	3	—	1	—	1	—	1	—	5	—	13	1
Malformations	1	—	—	—	—	—	—	—	—	—	—	—	1	—
Poisons	4	—	3	—	—	—	—	—	—	—	—	—	16	—
Animal Parasites	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Protozoa	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Trematoda	2	—	7	—	2	—	5	—	—	—	—	—	—	—
Cestoda	1	—	—	—	—	—	—	—	18	—	11	—	4	—
Nematoda	2	—	33	—	358	12	1	—	—	—	5	—	6	—
Elephantiasis, Leg	9	—	1	—	9	—	4	—	2	—	1	—	3	—
,, Scrotum	27	1	—	—	3	—	2	—	2	—	—	—	14	1
,, Other	6	—	—	—	—	—	1	—	—	—	—	—	3	—
Insecta	3	—	—	—	1	—	—	—	—	—	—	—	4	—
Tunga Penetrans	2	—	—	—	86	—	—	—	—	—	—	—	4	—
TOTAL	6.539	50	4,307	5	2,694	38	2,529	6	2,173	8	5,922	14	6,862	51

TABLE XI.—*continued.*

TOTAL NUMBERS OF FRESH CASES, IN-PATIENTS AND OUT-PATIENTS, FOR ALL DISEASES DURING THE YEAR 1924—*continued.*

	Tanga.		Tukuyu.		Tunduru.		Ujiji.		Utete.		TOTAL.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Brought forward ..	1,885	24	4,696	13	276	—	626	—	5,544	1	52,396	257
Local Diseases—												
Diseases of Nervous System ..	164	1	184	—	41	—	35	—	123	—	5,483	28
,, ,, Eye	222	—	489	—	54	—	96	—	113	—	5,903	—
,, ,, Ear	126	1	230	—	13	—	51	—	19	—	2,261	1
,, ,, Nose	2	—	—	—	—	—	—	—	—	—	114	—
,, ,, Circulatory System ..	12	1	5	1	—	—	—	—	2	—	153	11
,, ,, Respiratory ,, ..	1,136	—	1,000	1	210	—	377	—	285	—	18,150	31
,, ,, Digestive ,, ..	1,687	9	1,851	2	233	—	387	—	548	—	23,492	107
,, ,, Lymphatic ,, ..	47	1	97	—	9	—	6	—	1	—	679	2
,, ,, Urinary ,, ..	45	2	5	—	2	—	2	—	4	—	180	8
,, ,, Generative ,, ..												
Male Organs	167	1	20	—	12	—	4	—	34	—	1,309	4
Female ,,	23	—	31	2	3	—	4	—	7	—	603	9
,, ,, Organs of Locomotion ..	394	1	546	—	36	—	96	—	35	—	5,696	3
,, ,, Connective Tissue ..	396	1	219	—	12	—	66	—	56	—	3,231	7
,, ,, Skin	1,377	5	1,190	—	528	—	1,183	—	461	—	26,663	20
Injuries	531	4	931	5	146	—	191	—	212	—	15,465	61
Tumours	7	1	31	—	—	—	1	—	—	—	162	10
Malformations	—	—	—	—	—	—	—	—	—	—	7	—
Poisons	3	—	1	—	—	—	—	—	16	—	78	2
Animal Parasites	—	—	—	—	—	—	—	—	—	—	—	—
Protozoa	—	—	—	—	—	—	—	—	—	—	—	—
Trematoda	107	—	41	—	—	—	—	—	—	—	219	—
Cestoda	16	—	120	—	4	—	—	—	16	—	1,014	2
Nematoda	1,366	50	22	—	56	1	—	—	43	—	4,091	110
Elephantiasis, Leg	7	1	2	—	—	—	—	—	—	—	85	2
,, Scrotum	17	1	—	—	—	—	—	—	2	—	92	3
,, Other	1	—	3	—	—	—	—	—	—	—	41	1
Insecta	7	—	—	—	—	—	—	—	—	—	40	—
Tunga Penetrans	12	—	22	—	—	—	75	—	—	—	693	—
TOTAL	9,757	104	11,736	24	1,635	1	3,200	—	7,521	1	168,300	679

TABLE XII.

SUMMARY OF CASES, IN AND OUT-PATIENTS, TREATED AT THIRTY-THREE GOVERNMENT HOSPITALS AND DISPENSARIES IN 1924, SHOWING DENOMINATIONS OF PATIENTS.

STATIONS.	IN-PATIENTS.					OUT-PATIENTS.				TOTALS.
	E.O.	E.G.P.	N.O.	N.G.P.	Deaths.	E.O.	E.G.P.	N.O.	N.G.P.	
Arusha	14	35	323	447	18	7	102	448	3,381	4,757
Bagamoyo	1	2	85	110	8	9	1	445	3,861	4,514
Bukoba	12	6	175	742	22	15	7	601	7,825	9,383
Dar-es-Salaam, European Hospital ..	244	180	120	87	5	317	284	83	80	1,395
„ Sewa Hadji Hospital ..	24	2	3,472	1,302	74	9	—	10,197	7,172	22,178
Dodoma	26	4	255	593	13	52	30	893	2,512	4,365
Iringa	5	15	127	254	6	16	22	1,748	7,212	9,399
Kahama	1	—	39	146	7	2	—	301	497	986
Kigoma	26	54	169	370	26	61	70	629	1,525	2,904
Kilosa	8	3	26	175	11	53	9	568	2,640	3,482
Kilwa	4	—	43	260	7	6	1	304	2,814	3,432
Kondoa-Irangi	2	5	24	704	9	20	33	480	4,319	5,587
Lindi	18	10	96	270	13	18	23	1,329	2,055	3,819
Lushoto	2	7	9	93	5	11	12	182	1,821	2,137
Mafia	—	—	10	32	3	2	1	145	322	512
Mahenge	7	6	124	119	4	2	8	670	1,145	2,081
Mbulu	1	—	4	125	6	5	3	73	1,914	2,125
Mikindani	2	—	42	203	1	—	4	143	3,393	3,787
Morogoro	13	—	165	638	102	4	—	1,034	1,653	3,507
Moshi	14	97	103	459	26	42	192	1,502	9,111	11,520
Musoma	3	2	9	182	11	2	1	312	1,442	1,953
Mwanza	22	57	286	1,009	50	43	62	1,578	3,538	6,595
Namanyere	1	5	7	269	5	7	4	605	3,431	4,329
Pangani	2	1	34	231	38	4	5	199	2,227	2,703
Shinyanga	7	—	54	128	6	—	1	275	2,068	2,533
Singida	2	2	18	743	8	2	—	187	1,246	2,200
Songea	3	—	178	293	14	23	5	843	4,590	5,935
Tabora	78	33	1,347	850	51	98	126	3,306	1,099	6,937
Tanga	36	44	170	1,071	104	69	66	911	7,476	9,843
Tukuyu	12	3	88	941	24	11	42	612	10,068	11,777
Tunduru	—	1	20	220	1	—	2	154	1,239	1,636
Ujiji	—	—	21	8	—	—	—	394	2,777	3,200
Utete	1	1	98	201	1	17	—	815	6,388	7,521
TOTALS	591	575	7,741	13,275	679	927	1,116	31,966	112,841	169,032

E.O.—European Officials. E.G.P.—European General Population. N.O.—Asiatic and Native Officials.
N.G.P.—General Asiatic and Native Population.

TABLE XIII.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS), AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1924.

Diseases.	In-Patients.					Out-Patients.			Total Cases In and Out-Patients.
	Remaining in Hospital at the end of 1923.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at the end of 1924.	Males.	Females.	Total.	
		Admissions.	Deaths.						
(a) *Infective Diseases*—									
Anthrax	—	7	2	7	—	—	—	—	7
Beri Beri	—	29	1	29	4	6	—	6	35
Cancrumoris	—		—	—	—	—	1	1	1
Cerebro-spinal Fever..	—	5	2	5	—	—	—	—	5
Chicken-pox	5	195	—	200	1	15	1	16	216
Cholera	—	—	—	—	—	—	—	—	—
Dengue	—	30	—	36	—	1	5	6	36
Diphtheria	—	—	—	—	—	—	1	1	1
Dysentery—									
(a) Amœbic ..	4	135	11	139	8	176	11	187	326
(b) Bacillary ..	1	48	1	49	—	99	22	121	170
(c) Unclassified ..	—	18	3	18	—	60	3	63	81
Endocarditis—infective	—	—	—	—	—	—	—	—	—
Enteric Fever.. ..	1	9	1	10	—	—	—	—	10
Erysipelas	—	4	—	4	3	1	1	2	6
Gangosa	1	—	—	1	—	11	3	14	15
Gonorrhœa	26	470	—	496	38	1,467	132	1,599	2,095
Influenza	7	388	7	395	6	1,505	905	2,410	2,805
Kala Azar	—	—	—	—	—	—	—	—	—
Leprosy—									
(a) Nodular ..	1	5	—	6	—	20	11	31	37
(b) Anæsthetic ..	5	9	2	14	1	33	4	37	51
Malaria—									
(a) Tertian	19	1,719	17	1,738	12	7,692	1,725	9,417	11,155
(b) Quartan ..	—	143	2	143	—	27	19	46	189
(c) Æstivo—autumnal ..	8	2,839	6	2,847	9	7,059	1,109	8,168	11,015
(d) Chronic Malaria	1	70	1	71	2	282	52	334	405
(e) Blackwater ..	1	29	5	30	2	1	—	1	31
Measles	—	23	—	23	—	3	1	4	27
Mycetoma	1	—	—	1	—	—	—	—	1
Mumps	4	138	1	142	1	18	10	28	170
Pellagra	—	—	—	—	—	—	—	—	—
Plague..	—	44	2	44	1	4	6	10	54
Pneumonia, Acute Lobar	3	289	63	292	3	45	15	60	352
Pyogenic Infection—									
(a) Abscess	2	2	—	4	1	6	—	6	10
(b) Osteomyelitis ..	—	2	—	2	1	—	—	—	2
(c) Pyœmia ..	—	1	1	1	—	—	—	—	1
Rabies..	—	—	—	—	—	—	—	—	—
Relapsing (Tick) Fever	2	91	—	93	6	43	14	57	150
Rheumatic Fever ..	2	11	—	13	1	15	5	20	33
Sand-fly Fever ..	—	2	1	2	—	—	—	—	2
Septicæmia	—	6	6	6	—	2	—	2	8
Trypanosomiasis (Sleeping Sickness)	—	6	2	6	5	1	1	2	8
Small-pox	—	1	—	1	1	—	—	—	1
Syphilis—									
(a) Primary ..	14	345	—	359	21	423	159	582	941
(b) Secondary ..	38	635	5	673	66	1,404	619	2,023	2,696
(c) Inherited ..	29	148	11	177	10	403	211	614	791
Tetanus	—	9	4	9	—	1	—	1	10
Tuberculosis	7	160	70	167	6	133	33	166	333
Carried forward ..	182	8,065	227	8,247	209.	20,956	5,079	26,035	34,282

TABLE XIII.—*continued.*

RETURN OF DISEASES AND DEATHS (IN-PATIENTS), AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1924—*continued.*

Diseases.	In-Patients.					Out-Patients.			Total Cases In and Out-Patients.
	Remaining in Hospital at the end of 1923.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at the end of 1924.	Males.	Females.	Total.	
Brought forward ..	182	8,065	227	8,247	209	20,956	5,079	26,035	34,282
Infective Diseases—contd.									
Undulant Fever ..	—	—	—	—	—	—	—	—	—
Whooping Cough ..	—	—	—	—	—	21	7	28	28
Yaws	88	3,031	8	3,119	163	7,513	5,893	13,406	16,525
Yellow Fever	—	—	—	—	—	—	—	—	—
P.U.O...	3	375	2	378	5	100	18	118	496
Others	—	11	—	11	—	78	18	96	107
(*b*) *Intoxications*—									
Alcoholism	—	3	1	3	—	1	—	1	4
Morphinism	—	—	—	—	—	—	—	—	—
Others	—	—	—	—	—	—	—	—	—
(*c*) *General Diseases*—									
Anæmia	9	109	9	118	5	422	141	563	681
Anæmia—Pernicious	—	2	1	2	—	2	1	3	5
Diabetes	1	—	—	1	—	15	1	16	17
Exophthalmic Goitre..	—	—	—	—	—	5	4	9	9
Gout	1	4	1	5	—	4	—	4	9
Leucocythæmia ..	—	1	—	1	—	—	—	—	1
Hodgkin's Disease ..	—	—	—	—	—	—	1	1	1
Myxœdema	—	—	—	—	—	—	—	—	—
Purpura	1	1	—	2	—	—	—	—	2
Rickets	—	—	—	—	—	4	2	6	6
Scurvy	1	3	—	4	—	8	1	9	13
Other General Diseases	4	83	8	87	6	342	50	392	479
(*d*) *Local Diseases*—									
(1) Nervous System—									
Sub-section 1. Neuritis	1	25	—	26	1	546	121	667	693
Meningitis	—	5	5	5	—	1	—	1	6
Myelitis	—	1	1	1	—	6	—	6	7
Hydrocephalus ..	—	—	—	—	—	—	—	—	—
Encephalitis	—	1	—	1	—	—	—	—	1
Abscess of Brain ..	—	—	—	—	—	—	—	—	—
Congestion of Brain	—	—	—	—	—	2	—	2	2
Sub-section 2. Other Diseases ..	—	30	8	30	2	55	10	65	95
Apoplexy	—	3	2	3	—	1	—	1	4
Paralysis	3	27	2	30	1	13	3	16	46
Chorea	—	2	—	2	—	2	—	2	4
Epilepsy	5	68	3	73	4	53	20	73	146
Neuralgia	1	131	—	132	4	1,441	183	1,624	1,756
Hysteria	—	4	—	4	—	3	10	13	17
Headache	—	25	—	25	—	2,090	321	2,411	2,436
Neurasthenia	—	9	—	9	3	24	11	35	44
Other Diseases ..	2	19	2	21	4	135	15	150	171
Sub-section 3. Mental Diseases—									
Idiocy	—	3	—	3	1	1	—	1	4
Mania	1	15	1	16	1	8	2	10	26
Melancholia	—	3	1	3	—	—	—	—	3
Dementia	—	2	1	2	—	1	1	2	4
Delusional Insanity..	—	7	—	7	1	4	6	10	17
Other Mental Diseases	—	9	2	9	2	7	—	7	16
(2) Diseases of the Eye—									
Conjunctivitis ..	9	228	—	237	4	3,350	1,311	4,661	4,898
Keratitis	—	6	—	6	—	23	4	27	33
Ulceration of Cornea..	1	22	—	23	—	100	26	126	149
Carried forward ..	313	12,333	285	12,646	416	37,337	13,260	50,637	63,243

TABLE XIII.—*continued.*

Return of Diseases and Deaths (In-Patients), and of Diseases (Out-Patients) for the Year 1924—*continued.*

Diseases.	In-Patients.					Out-Patients.			Total Cases In and Out-Patients.
	Remaining in Hospital at the end of 1923.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at the end of 1924.	Males.	Females.	Total.	
		Admissions.	Deaths.						
Brought forward ..	313	12,333	285	12,646	416	37,337	13,260	50,957	63,243
Iritis	1	23	—	24	3	80	54	134	158
Optic Neuritis	—	—	—	—	—	3	—	3	3
Cataract	1	13	—	14	—	34	19	53	67
Other Eye Diseases ..	8	62	—	70	3	448	99	547	617
(3) Diseases of the Ear—									
Inflammation of Ext. Ear	1	12	1	13	—	754	264	1,018	1,031
Inflammation of Middle Ear	—	18	—	18	1	706	240	946	964
Inflammation of Mastoid	—	6	—	6	2	23	8	31	37
Other Diseases ..	—	9	—	9	—	161	60	221	230
(4) Diseases of the Nose	1	8	—	9	—	88	18	106	115
(5) Circulatory System—									
Pericarditis	—	3	2	3	—	3	1	4	7
Endocarditis	—	3	3	3	—	4	—	4	7
Valvular, Mitral ..	—	20	4	20	—	23	4	27	47
,, Aortic ..	—	1	—	1	—	2	1	3	4
,, Tricuspid ..	—	—	—	—	—	1	—	1	1
,, Pulmonary	—	—	—	—	—	—	—	—	—
Arterio-Sclerosis ..	—	—	—	—	—	—	—	—	—
Aneurism	—	—	—	—	—	—	—	—	—
Other Diseases ..	1	17	2	18	1	56	16	72	90
(6) Respiratory System—									
Laryngitis	2	10	1	12	—	142	54	196	208
Bronchitis	4	421	6	425	8	11,894	2,688	14,582	15,007
Asthma	1	52	2	53	—	307	83	390	443
Broncho-Pneumonia ..	1	51	16	52	1	39	16	55	107
Abscess of Lung ..	—	1	1	1	—	—	—	—	1
Gangrene of Lung ..	—	—	—	—	—	—	—	—	—
Emphysema	—	2	—	2	1	—	—	—	2
Pleurisy	2	49	1	51	4	75	10	85	136
Empyema	—	3	1	3	—	1	1	2	5
Other Respiratory Diseases	2	56	3	58	1	1,776	420	2,196	2,254
(7) Digestive System—									
Stomatitis	—	5	—	5	—	296	75	371	376
Caries of Teeth ..	—	22	—	22	—	2,870	1,265	4,135	4,157
Sore Throat	—	25	—	25	—	1,378	239	1,617	1,642
Inflammation of Tonsils	2	137	—	139	1	885	120	1,005	1,144
Gastritis	1	56	—	57	—	210	84	294	351
Ulceration of Stomach	—	3	—	3	—	—	—	—	3
Hæmatemesis.. ..	—	4	—	4	—	6	—	6	10
Dilatation of Stomach	—	—	—	—	—	6	—	6	6
Stricture of Stomach	1	—	—	1	—	2	1	3	4
Dyspepsia	2	31	—	33	3	471	129	600	633
Enteritis	—	19	3	19	—	17	4	21	40
Appendicitis	—	8	—	8	—	4	—	4	12
Colitis	1	46	1	47	—	101	10	111	158
Ulceration of Intestines	—	1	1	1	—	1	—	1	2
Sprue	—	1	1	1	—	—	1	1	2
Hernia..	16	134	7	150	12	46	1	47	197
Diarrhœa	15	596	65	611	8	2,774	559	3,333	3,944
Carried forward ..	376	14,261	406	14,637	465	63,024	19,804	98,812	97,440

TABLE XIII.—*continued.*

RETURN OF DISEASES AND DEATHS (IN-PATIENTS), AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1924—*continued.*

Diseases.	In-Patients.					Out-Patients.			Total Cases In and Out-Patients.
	Remaining in Hospital at the end of 1923.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at the end of 1924.	Males.	Females.	Total.	
Brought forward ..	376	14,261	406	14,637	465	63,024	19,804	98,812	97,440
Constipation	1	125	—	126	2	5,852	1,222	7,074	7,200
Colic	2	210	1	212	3	2,206	406	2,612	2,824
Hæmorrhoids	1	28	—	29	1	66	7	73	102
Panreatitis	—	—	—	—	—	—	—	—	—
Hepatitis—									
(*a*) Acute	2	27	—	29	—	48	8	56	85
(*b*) Abscess	1	3	3	4	—	—	3	3	7
Cirrhosis of Liver ..	3	15	8	18	—	19	1	20	38
Jaundice	1	22	3	23	1	98	14	112	135
Peritonitis	—	8	4	8	—	3	1	4	12
Ascites	2	25	8	27	1	10	4	14	41
Other Diseases Digest. System	1	55	2	56	—	303	59	362	418
(8) Lymphatic System—									
Inflammation, Lymphatic Gland ..	2	83	1	85	—	305	33	338	423
Suppuration, Lymphatic Gland ..	1	44	1	45	3	64	6	70	115
Lymphangitis ..	1	3	—	4	—	14	5	19	23
Other Diseases ..	—	17	—	17	1	52	56	108	125
(9) Urinary System—									
Acute Nephritis ..	2	2	—	4	—	6	1	7	11
Bright's Disease ..	—	9	4	9	1	15	3	18	27
Pyelitis	—	—	—	—	—	—	—	—	—
Calculus	—	—	—	—	—	2	1	3	3
Cystitis	3	21	3	24	—	43	9	52	76
Vesical Calculus ..	—	5	1	5	—	5	—	5	10
Suppression	—	3	—	3	—	2	—	2	5
Hæmaturia	—	6	—	6	—	12	—	12	18
Chyluria	—	—	—	—	—	—	—	—	—
Others, Urinary System	2	17	—	19	—	17	2	19	38
(10) Generative System—									
Male Organs—									
Urethritis	—	30	—	30	—	106	—	106	136
Gleet	—	1	—	1	—	15	—	15	16
Stricture	5	63	1	68	4	44	—	44	112
Prostatitis	—	—	—	—	—	1	—	1	1
Soft Chancre ..	2	49	—	51	3	99	—	99	150
Condyloma	—	6	—	6	—	17	—	17	23
Inflammation of Scrotum	1	4	—	5	—	19	—	19	24
Hydrocele	11	141	1	152	15	78	—	78	230
Orchitis	6	147	—	153	12	294	—	294	447
Epididymitis ..	—	19	—	19	2	23	—	23	42
Other Diseases ..	1	94	2	95	17	58	—	58	153
Female Organs—									
Ovaritis	—	2	—	2	—	—	21	21	23
Ovarian Cyst ..	—	1	—	1	1	—	1	1	2
Endometritis ..	—	3	—	3	—	—	5	5	8
Displacement of Uterus	2	5	—	7	—	—	5	5	12
Vaginitis	—	1	—	1	—	—	9	9	10
Carried forward ..	429	15,555	449	15,984	532	72,920	21,686	94,606	110,590

TABLE XIII.—*continued.*

RETURN OF DISEASES AND DEATHS (IN-PATIENTS), AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1924—*continued.*

Diseases.	In-Patients.					Out-Patients.			Total Cases In and Out-Patients.
	Remaining in Hospital at the end of 1923.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at the end of 1924.	Males.	Females.	Total.	
		Admissions.	Deaths.						
Brought forward ..	429	15,555	449	15,984	532	72,920	21,686	94,606	110,590
Amenorrhœa ..	—	2	—	2	—	—	23	23	25
Dysmenorrhœa ..	—	1	—	1	—	—	69	69	70
Menorrhagia	—	3	—	3	—	—	17	17	20
Leucorrhœa	—	1	—	1	—	—	39	39	40
Abortion	—	21	1	21	1	—	10	10	31
Delayed Labour ..	—	10	2	10	1	—	4	4	14
Postpartum Hæmorrhage ..	—	—	—	—	—	—	3	3	3
Retained Placenta ..	—	8	1	8	—	—	2	2	10
Premature Birth ..	—	4	2	4	—	—	1	1	5
Puerperal Septicæmia	—	3	2	3	—	—	3	3	6
Mastitis	1	10	—	11	—	—	55	55	66
Abscess of Breast ..	—	3	—	3	—	—	25	25	28
Other Diseases ..	1	60	1	61	5	—	174	174	235
(11) Organs of Locomotion—									
Osteitis	2	20	—	22	2	59	37	96	118
Arthritis	2	80	3	82	—	594	144	738	820
Bursitis	—	—	—	—	—	15	1	16	16
Lumbago	—	16	—	16	—	147	12	159	175
Myalgia	—	37	—	37	3	2,000	344	2,344	2,381
Rheumatism	—	94	—	94	1	1,173	264	1,437	1,531
Other Diseases ..	4	170	—	174	12	436	55	491	665
(12) Connective Tissue—									
Cellulitis	5	129	—	134	3	732	97	829	963
Abscess	10	310	6	320	13	1,000	168	1,168	1,488
Other Diseases ..	49	149	1	198	4	574	27	601	799
(13) Diseases of Skin—									
Urticaria	—	6	—	6	5	54	14	68	74
Eczema	1	68	—	69	1	572	126	698	767
Boil	2	79	—	81	1	944	104	1,048	1,129
Carbuncle	—	10	—	10	1	8	3	11	21
Horpes	1	2	—	3	—	27	5	32	35
Psoriasis	1	9	—	10	—	14	6	20	30
Oriental Sore	—	2	—	2	—	29	6	35	37
Tinsa	—	2	—	2	—	137	35	172	174
Scabies	4	123	1	127	7	4,147	893	5,040	5,167
Acne	—	—	—	—	—	18	1	19	19
Prickly Heat	—	—	—	—	—	23	3	26	26
Ulcer	90	1,913	19	2,003	192	14,186	2,760	16,946	18,949
Other Diseases ..	1	82	—	83	6	252	48	300	383
(*e*) *Injuries*—									
General	3	66	5	69	2	584	66	650	719
Local	58	1,268	56	1,326	57	12,229	1,266	13,495	14,821
(*f*) *Tumours*	8	93	10	101	7	53	17	70	171
Pappiloma	1	—	—	1	—	—	—	—	1
Cancer of Breast ..	—	—	—	—	—	—	2	2	2
(*g*) *Malformations* ..	—	—	—	—	—	4	4	8	8
(*h*) *Poisons*	—	10	2	10	—	20	6	26	36
Snake Bite	1	20	—	21	1	16	2	18	39
Ptomaine	—	1	—	1	—	—	—	—	1
(*i*) *Parasites, Animal* ..	—	1	—	1	—	—	—	—	1
(1) Protozoa	—	—	—	—	—	—	—	—	—
Carried forward ..	674	20,441	561	21,115	857	112,967	28,627	141,594	162,709

TABLE XIII.—*continued.*

RETURN OF DISEASES AND DEATHS (IN-PATIENTS), AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1924—*continued.*

Diseases.	In-Patients.					Out-Patients.			Total Cases In and Out-Patients.
	Remaining in Hospital at the end of 1923.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at the end of 1924.	Males.	Females.	Total.	
		Admissions.	Deaths.						
Brought forward	674	20,441	561	21,115	857	112,967	28,627	141,594	162,709
(2) Trematoda (Flukes)	—	—	—	—	—	—	—	—	—
(*a*) Schist. hœmatobium	2	44	—	46	1	133	3	136	182
(*b*) ,, mansoni	—	3	—	3	—	2	1	3	6
(*c*) Bilharziasis	—	1	—	1	—	30	2	32	33
(3) Cestoda—									
Tænia Solium	—	11	—	11	—	144	27	171	182
Tænia Saginata	1	95	1	96	2	582	155	737	833
(4) Nematoda—									
Ascaris	—	11	1	11	—	649	436	1,085	1,096
Triccocephalus Dispar	—	—	—	—	—	—	—	—	—
Filaria (*a*) m.f. Bancrofti	1	9	—	10	1	18	6	24	34
(i) Elephantiasis of Leg	2	19	2	21	1	58	8	66	87
(ii) Elephantiasis, Scrotum	13	88	3	101	22	26	—	26	127
(iii) Other	—	14	1	14	1	5	—	5	19
(*b*) f. medinensis (Guinea Worm)	—	1	—	1	—	1	—	1	2
(*c*) f. loa	—	—	—	—	—	—	—	—	—
Strongylus	—	1	1	1	—	2	1	3	4
Ankylostomiasis	26	461	109	487	34	2,035	452	2,487	2,974
Oxyuris	—	—	—	—	—	9	—	9	9
(5) Insecta	—	—	—	—	—	3	—	3	3
Myiasis	—	3	—	3	—	18	4	22	25
Jigger (T. penetrans)	—	24	—	24	1	574	106	680	704
Scorpion's Sting	—	—	—	—	—	1	1	2	2
N.Y.D.	—	1	—	1	1	—	—	—	1
	*13								
	732	21,227	679	21,946	921	117,257	29,829	147,086	169,032

* Omitted from last year's return.

TABLE XIV.

Return of Diseases (In- and Out-Patients) for the Year 1924, by Stations.

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hadji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilosa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.	Mafia.	Mahenge.	Mbulu.
(*a*) *Infective Diseases*—																	
Anthrax	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Beri-Beri	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Cancrumoris	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Cerebro-spinal Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chicken-pox	62	—	100	—	4	—	5	8	3	—	2	—	1	—	—	1	—
Dengue	—	—	—	30	1	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery—																	
(*a*) Amœbic	11	—	32	4	5	10	16	—	2	—	—	2	—	7	5	—	2
(*b*) Bacillary	—	—	—	8	1	6	—	—	5	—	—	39	—	—	—	8	—
(*c*) Unclassified	—	—	—	—	—	—	—	—	—	73	8	—	—	—	—	—	—
Endocarditis—infective ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—
Erysipelas	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Gangosa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gonorrhœa	74	38	614	1	193	46	27	53	74	11	41	71	11	8	9	15	15
Influenza	98	—	57	50	14	—	—	—	—	—	—	—	340	62	—	31	7
Kala Azar	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Leprosy—																	
(*a*) Nodular	—	—	7	—	—	—	—	—	—	—	—	1	—	—	—	—	1
(*b*) Anæsthetic	1	—	5	—	3	—	—	—	2	—	—	3	—	—	—	27	—
Malaria—																	
(*a*) Tertian	271	—	70	17	229	208	691	189	—	34	168	800	496	52	103	226	180
(*b*) Quartan	—	2	95	51	5	—	—	—	—	—	—	—	—	1	—	—	—
(*c*) Æstivo—autumnal ..	36	329	1,152	169	6,337	429	—	—	318	387	—	—	—	1	—	51	—
(*d*) Chronic Malaria	3	2	29	7	44	4	—	—	20	96	—	44	—	61	—	3	9
(*e*) Blackwater	1	—	1	5	2	3	1	—	1	2	1	—	—	—	—	1	—
Measles	1	—	13	—	7	1	3	—	1	—	—	—	—	—	—	—	1
Mumps	—	—	—	—	1	—	8	1	—	—	—	—	—	—	—	—	2
Carried forward	558	371	2,175	344	6,846	708	751	251	427	603	220	961	848	192	118	363	217

TABLE XIV.—*continued.*

RETURN OF DISEASES (IN- AND OUT-PATIENTS) FOR THE YEAR 1924, BY STATIONS—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Musoma.	Mwanza.	Namanyere.	Pangani.	Shinyanga.	Singida.	Songea.	Tabora.	Tanga.	Tukuyu.	Tunduru.	Ujiji.	Utete.	TOTAL.
(*a*) *Infective Diseases*—																	
Anthrax	—	—	—	—	1	—	—	—	5	—	—	—	—	—	—	—	7
Beri-Beri	—	—	—	—	—	—	7	—	—	—	—	27	—	—	—	—	35
Cancrumoris	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Cerebro-spinal Fever	—	—	—	1	1	—	1	—	—	1	—	1	—	—	—	—	5
Chicken-pox	—	8	8	1	—	1	—	—	4	1	6	1	—	—	—	—	216
Dengue	—	—	—	—	—	—	—	—	—	—	—	5	—	—	—	—	36
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1
Dysentery—																	
(*a*) Amœbic	6	101	33	—	2	7	7	3	12	11	37	8	1	2	—	—	326
(*b*) Bacillary	—	—	—	23	16	8	2	2	—	—	—	4	18	—	—	30	170
(*c*) Unclassified	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	81
Endocarditis—infective ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	—	—	—	—	1	—	—	—	—	—	7	—	—	—	—	—	10
Erysipelas	—	—	1	—	—	2	—	—	1	—	1	—	—	—	—	—	6
Gangosa	—	—	15	—	—	—	—	—	—	—	—	—	—	—	—	—	15
Gonorrhœa	25	30	47	13	90	29	25	11	38	83	128	142	37	19	41	36	2,095
Influenza	59	—	1	46	15	74	1	4	45	1,443	55	137	125	—	84	57	2,805
Kala Azar	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Leprosy—																	
(*a*) Nodular	—	1	4	—	1	—	—	—	—	1	1	—	14	2	4	—	37
(*b*) Anæsthetic	—	—	—	—	2	—	8	—	—	—	—	—	—	—	—	—	51
Malaria—																	
(*a*) Tertian	70	360	3,473	224	630	396	134	162	101	495	232	792	1	58	—	293	11,155
(*b*) Quartan	—	—	—	—	—	—	31	—	—	—	—	1	2	—	1	—	189
(*c*) Æstivo—autumnal ..	—	—	—	—	—	—	—	106	—	—	738	2	738	—	222	—	11,015
(*d*) Chronic Malaria	2	2	—	—	17	—	15	9	—	—	2	11	—	—	10	15	405
(*e*) Blackwater	—	1	7	1	1	—	—	—	—	—	2	—	1	—	—	—	31
Measles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27
Mumps	—	—	4	—	—	—	1	—	—	—	127	1	25	—	—	—	170
Carried forward	162	503	3,593	309	777	517	232	297	206	2,035	1,336	1,133	962	81	362	431	28,889

TABLE XIV.—*continued.*

RETURN OF DISEASES (IN- AND OUT-PATIENTS) FOR THE YEAR 1924, BY STATIONS—*continued.*

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hadji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilosa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.	Mafia.	Mahenge.	Mbulu.
Brought forward	558	371	2,175	344	6,846	708	751	251	427	603	220	961	848	192	118	363	217
Mycetoma	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
Pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Plague	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia, acute lobar	7	—	12	2	66	30	4	6	8	3	4	13	2	3	—	3	3
Pyogenic Infection—																	
(*a*) Abscess	—	—	—	—	—	1	—	—	5	4	—	—	—	—	—	—	—
(*b*) Osteomyelitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(*c*) Pyæmia	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Rabies	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Relapsing (Tick) Fever	—	—	—	13	18	—	28	—	9	—	—	—	—	—	—	2	—
Rheumatic Fever	—	1	2	—	1	—	4	—	—	2	—	—	—	3	—	—	1
Sand-fly Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Septicæmia	1	—	—	—	3	—	1	—	—	—	—	—	—	1	—	—	—
Trypanosomiasis (S. Sick.)	—	—	—	—	—	—	—	—	8	—	—	—	—	—	—	—	—
Small-pox	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Syphilis—																	
(*a*) Primary	3	15	8	3	50	57	45	18	74	4	6	22	29	4	8	15	11
(*b*) Secondary	9	15	682	4	94	50	6	2	48	28	11	43	—	26	—	11	—
(*c*) Inherited	2	—	33	2	101	6	—	3	—	5	24	22	—	—	—	—	—
Tetanus	—	—	1	—	2	—	—	—	—	—	—	1	—	—	—	—	—
Tuberculosis	8	2	6	3	24	8	1	1	8	2	1	10	—	12	3	5	4
Undulant Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
Yaws	165	454	23	—	473	89	20	29	479	22	653	1,013	149	41	—	11	44
Yellow Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P.U.O.	59	—	1	21	321	—	—	—	11	1	—	1	—	—	—	11	—
Others	3	—	—	8	—	—	76	—	—	—	—	3	—	—	—	15	—
(*b*) *Intoxications*—																	
Alcoholism	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Morphinism	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Others	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Carried forward	815	858	2,943	400	7,999	950	936	311	1,078	674	910	2,090	1,028	282	129	437	280

TABLE XIV.—*continued.*

RETURN OF DISEASES (IN- AND OUT-PATIENTS) FOR THE YEAR 1924, BY STATIONS—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Musoma.	Mwanza.	Namanyere.	Pangani.	Shinyanga.	Singida.	Songea.	Tabora.	Tanga.	Tukuyu.	Tunduru.	Ujiji.	Utete.	TOTAL.
Brought forward ..	162	503	3,593	309	777	517	232	297	206	2,035	1,336	1,133	962	81	362	431	28,889
Mycetoma	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Plague	—	—	—	17	37	—	—	—	—	—	—	—	—	—	—	—	54
Pneumonia, acute lobar ..	2	4	11	—	—	36	3	5	1	7	17	65	13	2	11	9	352
Pyrogenic Infection—																	
(*a*) Abscess	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10
(*b*) Osteomyelitis	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	2
(*c*) Pyœmia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Rabies	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Relapsing (Tick) Fever ..	—	1	—	4	7	24	—	3	1	—	8	2	26	—	—	4	150
Rheumatic Fever	—	—	2	—	2	11	—	—	—	—	3	1	—	—	—	—	33
Sand-fly Fever	—	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	2
Septicæmia	—	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	8
Trypanosomiasis (S. Sick.) ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8
Small-pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Syphilis—																	
(*a*) Primary	1	23	—	157	125	7	5	10	53	73	18	50	10	6	13	18	941
(*b*) Secondary	55	162	191	25	870	70	24	34	43	—	74	53	41	9	4	12	2,696
(*c*) Inherited	4	7	—	282	18	3	2	6	6	—	47	60	37	—	120	1	791
Tetanus	—	—	2	—	—	—	3	—	—	—	1	—	—	—	—	—	10
Tuberculosis	3	19	69	—	17	—	41	3	—	6	24	38	9	—	6	—	333
Undulant Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	—	3	—	—	—	—	—	1	1	—	8	—	—	14	—	28
Yaws	1,090	323	735	36	330	108	276	4	436	115	158	411	3.577	159	91	5,011	16,525
Yellow Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P.U.O.	—	—	21	—	—	—	34	—	—	—	—	1	10	4	—	—	496
Others	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	107
(*b*) *Intoxications*—																	
Alcoholism	—	—	—	—	—	—	—	1	—	—	2	—	—	—	—	—	4
Morphinism	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Others	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Carried forward ..	1,317	1,044	4,627	831	2,184	776	620	363	747	2,238	1,690	1,823	4,685	261	621	5,486	51,412

TABLE XIV.—*continued.*

RETURN OF DISEASES (IN- AND OUT-PATIENTS) FOR THE YEAR 1924, BY STATIONS—*continued.*

	Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hadji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilosa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.	Mafia.	Mahenge.	Mbulu.
	Brought forward ..	815	858	2,943	400	7,999	950	936	311	1,078	674	919	2,090	1,028	282	129	437	280
	(c) *General Diseases*—																	
	Anæmia	14	131	3	2	154	25	18	1	15	11	5	6	20	5	—	7	—
	Anæmia—Pernicious	—	—	—	—	—	—	2	—	—	2	—	1	—	—	—	—	—
	Diabetes	—	—	—	—	4	1	1	—	—	—	—	1	4	—	—	—	—
	Exophthalmic Goitre	1	—	1	1	—	—	—	—	1	—	—	—	—	—	—	—	2
	Gout	—	—	—	—	1	2	—	—	—	—	—	—	1	—	—	—	1
	Leucocythæmia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hodgkin's Disease	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Myxœdema	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Purpura	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Rickets	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Scurvy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10
	Other General Diseases ..	—	—	3	90	59	2	—	—	1	55	6	4	—	7	1	—	20
	(d) *Local Diseases*—																	
	(1) Nervous System—																	
Sub-section 1.	Neuritis	1	—	1	3	381	59	—	—	—	—	9	—	17	—	5	—	—
	Meningitis	—	—	1	—	—	—	—	—	1	—	—	1	—	—	1	—	—
	Myelitis	—	—	—	—	6	—	—	—	—	—	—	—	—	—	—	—	—
	Hydrocephalus	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Encephalitis	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Abscess of Brain	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Congestion of Brain	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—
	Other Diseases	—	—	—	8	—	—	—	—	—	—	—	3	50	—	1	1	3
Sub-sect. 2.	Apoplexy	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Paralysis	—	—	6	4	6	4	—	—	3	1	1	4	—	1	—	1	
	Chorea	1	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—
	Epilepsy	4	9	7	2	15	6	3	3	—	—	2	25	2	1	—	4	1
	Neuralgia	1	—	33	10	916	94	25	1	4	3	47	60	3	84	—	7	1
	Hysteria	—	2	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1
	Carried forward	838	1,000	3,001	520	9,542	1,143	985	316	1,103	746	991	2,195	1,125	382	137	457	319

TABLE XIV.—*continued.*

RETURN OF DISEASES (IN- AND OUT-PATIENTS) FOR THE YEAR 1924, BY STATIONS—*continued.*

	Disease.	Mikindani.	Morogoro.	Moshi.	Musoma.	Mwanza.	Namanyere.	Pangani.	Shinyanga.	Singida.	Songea.	Tabora.	Tanga.	Tukuyu.	Tunduru.	Ujiji.	Utete.	TOTAL.
	Brought forward ..	1,317	1,044	4,627	831	2,184	776	620	363	747	2,238	1,690	1,823	4,685	261	621	5,486	51,442
	(c) *General Diseases*—																	
	Anæmia	6	—	52	—	54	8	12	3	4	1	29	13	34	12	4	32	681
	Anæmia—Pernicious	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5
	Diabetes	—	—	2	—	—	1	1	—	—	—	—	—	—	2	—	—	17
	Exophthalmic Goitre	—	2	—	—	—	—	—	—	—	1	—	—	—	—	—	—	9
	Gout	—	—	—	—	—	—	—	1	—	—	—	1	—	2	—	—	9
	Leucocythæmia	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1
	Hodgkin's Disease	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1
	Myxœdema	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Purpura	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
	Rickets	—	—	—	—	—	3	—	—	—	—	—	3	—	—	—	—	6
	Scurvy	—	—	—	—	—	—	—	—	—	—	2	—	—	—	1	—	13
	Other General Diseases ..	—	34	1	10	63	—	16	4	2	19	2	52	2	—	—	26	479
	(d) *Local Diseases*—																	
	(1) Nervous System—																	
Sub-section 1.	Neuritis	—	—	1	—	1	161	—	—	—	—	8	11	17	7	11	—	693
	Meningitis	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	6
	Myelitis	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	7
	Hydrocephalus	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Encephalitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
	Abscess of Brain	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Congestion of Brain ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
	Other Diseases	1	1	—	7	7	—	—	—	—	1	—	10	—	—	—	2	95
Sub-sect. 2.	Apoplexy	—	—	—	—	2	1	—	—	—	—	—	—	—	—	—	—	4
	Paralysis	—	—	—	—	—	—	5	—	—	1	3	—	4	1	—	1	46
	Chorea	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	4
	Epilepsy	—	2	5	1	8	1	—	2	4	4	13	3	19	—	—	—	146
	Neuralgia	26	5	10	113	23	27	7	36	25	—	15	73	44	8	3	52	1,756
	Hysteria	—	—	1	—	1	—	—	—	—	—	3	1	—	—	—	7	17
	Carried forward ..	1,350	1,088	4,702	962	2,345	978	661	409	782	2,265	1,766	1,990	4,805	293	640	5,606	55,442

TABLE XIV.—*continued.*

RETURN OF DISEASES (IN- AND OUT-PATIENTS) FOR THE YEAR 1924, BY STATIONS—*continued.*

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hadji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilosa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.	Mafia.	Mahenge.	Mbulu.
Brought forward ..	838	1,000	3,001	520	9,542	1,143	985	316	1,103	746	991	2,195	1,125	382	137	457	319
Headache	45	72	58	—	288	15	597	18	8	19	11	—	87	50	23	36	190
Neurasthenia	1	—	—	24	1	—	—	—	1	—	—	—	1	2	—	—	—
Other Diseases..	—	2	10	—	1	2	—	—	1	1	8	—	—	2	—	—	—
Mental Diseases																	
Sub-sect. 3 Idiocy	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Mania	—	—	—	1	—	1	—	—	1	—	—	6	2	—	—	2	5
Melancholia	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dementia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Delusional Insanity.. ..	—	—	—	—	3	—	1	—	2	—	—	—	—	—	—	1	—
Other Mental Diseases ..	—	—	1	—	2	—	—	—	—	—	—	1	—	—	4	—	—
(2) Diseases of the Eye—																	
Conjunctivitis	278	168	471	7	482	308	425	19	42	65	76	151	128	19	8	54	52
Keratitis	—	—	—	—	—	1	—	—	—	—	2	8	1	—	—	—	—
Ulceration of Cornea ..	1	6	12	—	40	6	—	—	—	5	7	—	4	—	—	2	2
Iritis	—	—	1	—	13	3	—	—	1	3	—	—	32	—	—	3	—
Optic Neuritis	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—
Cataract	—	5	1	—	8	9	3	—	—	—	1	1	1	—	—	—	—
Other Eye Diseases.. ..	7	37	41	15	190	59	1	—	4	1	4	31	17	2	3	1	13
(3) Diseases of the Ear—																	
Inflammation of Ext. Ear ..	31	16	2	1	26	49	119	4	14	42	41	50	3	25	2	21	14
,, of Middle Ear ..	19	60	93	29	197	31	66	1	18	2	6	—	27	21	—	1	—
,, of Mastoid ..	1	1	—	—	4	1	—	—	—	—	—	2	—	—	—	—	—
Others	2	—	5	19	—	—	—	3	—	—	3	81	2	1	6	1	5
(4) Diseases of the Nose ..	—	5	1	4	8	4	—	1	11	1	5	1	—	12	—	4	—
(5) Circulatory System—																	
Pericarditis	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—
Endocarditis	—	—	—	—	1	—	—	—	—	—	—	1	—	—	—	—	2
Valvular, Mitral	2	5	1	—	6	—	1	—	1	1	—	9	—	1	—	—	—
,, Aortic	—	1	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—
,, Tricuspid.. ..	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Carried forward ..	1,225	1,378	3,699	620	10,813	1,632	2,198	362	1,207	886	1,155	2,539	1,433	517	183	585	602

TABLE XIV.—*continued.*

RETURN OF DISEASES (IN- AND OUT-PATIENTS) FOR THE YEAR 1924, BY STATIONS—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Musoma.	Mwanza.	Namanyere.	Pangani.	Shinyanga.	Singida.	Songea.	Tabora.	Tanga.	Tukuyu.	Tunduru.	Ujiji.	Utete.	TOTAL.
Brought forward ..	1,350	1,088	4,702	962	2,345	978	661	409	782	2,265	1,766	1,990	4,805	293	640	5,606	55,442
Headache	74	80	40	—	147	175	21	37	11	19	62	52	97	25	21	58	2,436
Neurasthenia	—	—	6	1	—	1	1	—	—	—	1	4	—	—	—	—	44
Other Diseases	—	—	—	—	117	—	3	1	4	—	15	4	—	—	—	—	171
Mental Diseases																	
Sub-sect. 3 Idiocy	—	—	—	—	—	1	—	—	—	—	1	1	—	—	—	—	4
Mania	—	—	—	—	2	—	—	1	—	—	—	4	—	—	—	1	26
Melancholia	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	3
Dementia	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	2	4
Delusional Insanity ..	—	—	—	—	—	5	—	2	—	—	—	—	3	—	—	—	17
Other Mental Diseases ..	—	—	2	—	5	—	—	—	—	—	—	1	—	—	—	—	16
(2) Diseases of the Eye—																	
Conjunctivitis	179	69	180	67	139	237	44	40	92	201	180	142	372	47	94	62	4,898
Keratitis	—	—	—	—	—	5	—	—	—	—	3	12	—	1	—	—	33
Ulceration of Cornea ..	2	—	7	—	5	1	5	—	—	—	2	14	26	—	2	—	149
Iritis	8	—	1	—	1	1	—	—	—	—	5	3	80	3	—	—	158
Optic Neuritis	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Cataract	—	1	—	—	2	1	4	4	—	4	1	7	11	2	—	1	67
Other Eye Diseases	3	3	11	2	21	8	10	3	2	—	29	46	2	1	—	50	617
(3) Diseases of the Ear—																	
Inflammation of Ext. Ear ..	1	2	2	—	19	2	4	28	16	114	7	86	228	—	44	18	1,031
,, of Middle Ear ..	28	13	98	40	55	56	14	2	—	—	53	33	—	—	—	1	964
,, of Mastoid ..	—	—	—	—	—	3	—	—	20	1	1	3	—	—	—	—	37
Others	15	2	9	—	26	—	4	8	—	—	12	4	2	13	7	—	230
(4) Diseases of the Nose ..	5	—	18	2	7	2	—	4	3	—	15	2	—	—	—	—	115
(5) Circulatory System—																	
Pericarditis	—	—	—	—	—	—	—	—	—	—	—	1	2	—	—	2	7
Endocarditis	—	1	—	—	1	—	—	1	—	—	—	—	—	—	—	—	7
Valvular, Mitral	1	—	5	—	3	—	1	—	1	2	—	4	3	—	—	—	47
,, Aortic	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	4
,, Tricuspid	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Carried forward ..	1,666	1,260	5,082	1,074	2,897	1,476	774	540	931	2,606	2,153	2,413	5,631	385	808	5,801	66,531

TABLE XIV.—*continued.*

RETURN OF DISEASES (IN- AND OUT-PATIENTS) FOR THE YEAR 1924, BY STATIONS—*continued.*

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hadji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilosa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.	Mafia.	Mahenge.	Mbulu.
Brought forward ..	1,225	1,378	3,699	620	10,813	1,632	2,198	362	1,207	886	1,155	2,539	1,433	517	183	585	602
Valvular, Pulmonary ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Arterio-Sclerosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Aneurism	—	—	—		—	—	—	—	—	—	—	—	—	—	—	—	—
Other Diseases	1	—	2	1	6	—	—	—	—	2	1	3	2	5	—	—	—
(6) Respiratory System—																	
Laryngitis	—	3	—	11	—	—	114	—	—	—	—	5	5	—	—	—	1
Bronchitis	68	471	893	56	2,199	592	450	133	283	312	236	785	349	333	52	339	328
Asthma	4	13	7	14	161	30	29	—	7	3	15	19	27	6	7	4	2
Broncho-Pneumonia ..	9	4	—	5	14	3	5	1	—	1	—	3	—	1	1	1	12
Abscess of Lung	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gangrene of Lung	—		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emphysema	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Pleurisy	—	3	—	—	3	6	10	—	—	1	2	4	—	6	—	—	3
Empyema	—	—	—	1	—	—	—	—	—	—	—	1	—	—	—	—	—
Other Respiratory Diseases..	683	1	—	35	63	4	1,291	—	—	46	—	3	16	6	1	1	18
(7) Digestive System—																	
Stomatitis	—	19	43	—	54	12	6	4	3	4	4	9	2	17	6	1	—
Caries of Teeth	156	100	103	7	247	111	326	19	80	97	151	62	112	43	24	25	21
Sore Throat	12	14	78	—	425	21	67	15	16	1	1	8	3	137	6	12	25
Inflammation of Tonsils ..	38	2	111	2	180	19	19	7	12	11	6	13	1	8	—	14	4
Gastritis	—	4	—	10	2	8	24	—	9	1	—	—	23	8	—	4	—
Ulceration of Stomach ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hæmatemesis	—	5	—	—	2	—	—	—	—	1	—	—	—	—	—	—	—
Dilatation of Stomach ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Stricture of Stomach ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Dyspepsia	9	25	31	47	57	23	7	—	4	20	5	138	6	26	6	44	—
Enteritis	2	—	—	3	7	—	—	—	5	—	—	3	4	—	—	—	—
Appendicitis..	—	—	—	6	4	—	—	—	—	—	—	—	—	—	—	—	—
Colitis	—	—	—	—	106	7	—	—	—	—	1	—	7	—	—	—	23
Ulceration of Intestines ..	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Sprue..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hernia	1	—	34	2	35	5	—	1	2	—	2	—	7	—	4	2	3
Carried forward ..	2,208	2,042	5,001	821	14,379	2,473	4,546	542	1,628	1,386	1,579	3,595	1,997	1,113	290	1,032	1,043

TABLE XIV.—*continued.*

Return of Diseases (In- and Out-Patients) for the Year 1924, by Stations—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Musoma.	Mwanza.	Namanyere.	Pangani.	Shinyanga.	Singida.	Songea.	Tabora.	Tanga.	Tukuyu.	Tunduru.	Ujiji.	Utete.	Total.
Brought forward ..	1,666	1,260	5,082	1,074	2,897	1,476	774	540	931	2,606	2,153	2,413	5,631	385	808	5,801	66,531
Valvular, Pulmonary ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Arterio-Sclerosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Aneurism	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Diseases	—	1	13	—	3	2	25	3	—	1	12	7	—	—	—	—	90
(6) Respiratory System—																	
Laryngitis	—	—	27	2	8	7	—	—	—	1	1	2	12	8	—	1	208
Bronchitis	212	282	751	196	469	805	196	393	162	570	248	1,079	943	197	377	248	15,007
Asthma	6	2	—	—	2	—	12	2	—	—	4	34	7	1	—	25	443
Broncho-Pneumonia ..	—	—	6	4	4	—	4	4	—	7	3	5	5	3	—	2	107
Abscess of Lung	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1
Gangrene of Lung	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emphysema	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	2
Pleurisy	—	—	8	—	2	14	4	5	3	3	10	12	27	1	—	9	136
Empyema	—	—	2	—	1	—	—	—	—	—	—	—	—	—	—	—	5
Other Respiratory Diseases..	—	12	5	2	25	2	3	—	23	2	2	4	6	—	—	—	2,254
(7) Digestive System—																	
Stomatitis	—	1	11	6	19	16	1	19	10	50	11	17	19	—	6	6	376
Caries of Teeth	89	115	141	23	99	66	110	15	12	309	112	270	806	57	99	150	4,157
Sore Throat	—	7	25	—	31	11	9	56	—	51	129	463	2	10	2	5	1,642
Inflammation of Tonsils ..	5	12	35	1	52	1	5	19	9	5	435	24	24	—	65	5	1,144
Gastritis	—	—	9	—	14	22	5	—	2	—	12	28	156	9	—	1	351
Ulceration of Stomach ..	—	—	—	—	—	—	—	—	—	—	1	2	—	—	—	—	3
Hæmatemesis	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	10
Dilatation of Stomach ..	—	—	—	—	—	6	—	—	—	—	—	—	—	—	—	—	6
Stricture of Stomach ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	4
Dyspepsia	1	—	12	1	14	—	1	29	23	33	20	32	1	4	—	14	633
Enteritis	—	—	—	—	2	—	—	3	—	—	—	3	—	8	—	—	40
Appendicitis	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	12
Colitis	—	—	—	—	2	4	3	—	—	—	2	1	2	—	—	—	158
Ulceration of Intestines ..	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Sprue	—	—	—	1	—	—	—	—	—	1	—	—	—	—	—	—	2
Hernia	1	—	—	—	11	1	1	—	2	11	13	39	8	3	4	5	197
Carried forward ..	1,980	1,692	6,128	1,310	3,657	2,436	1,154	1,088	1,177	3,650	3,168	4,435	7,649	686	1,361	6,275	93,521

TABLE XIV.—*continued.*

RETURN OF DISEASES (IN- AND OUT-PATIENTS) FOR THE YEAR 1924, BY STATIONS—*continued.*

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hadji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilosa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.	Mafia.	Mahenge.	Mbulu.
Brought forward ..	2,208	2,042	5,001	821	14,379	2,473	4,546	542	1,628	1,386	1,579	3,595	1,997	1,113	290	1,032	1,043
Diarrhœa	140	88	109	26	224	166	331	23	49	123	43	97	151	26	5	59	70
Constipation	36	155	822	1	439	263	641	40	53	115	116	181	178	241	32	139	114
Colic	175	77	3	8	957	76	55	12	46	46	18	62	4	14	7	5	15
Hæmorrhoids	1	6	1	4	34	13	10	2	2	—	2	3	1	—	—	—	1
Pancreatitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hepatitis—																	
(*a*) Acute	2	1	10	1	14	13	—	—	3	—	—	1	3	4	1	—	—
(*b*) Abscess	1	—	—	—	—	1	—	—	—	—	—	—	—	1	1	—	—
Cirrhosis of Liver	—	—	2	—	10	2	—	—	—	1	—	1	1	—	—	—	—
Jaundice	1	2	2	1	41	3	—	—	—	—	1	3	—	—	5	2	—
Peritonitis	1	4	—	1	—	2	—	—	—	—	—	2	—	—	—	—	—
Ascites	1	2	9	—	1	4	—	—	2	—	—	6	1	2	—	—	—
Other Diseases, Digestive System	5	1	4	50	8	19	—	—	1	5	2	34	22	2	1	4	18
(8) Lymphatic Gland—																	
Inflammation of Lymphatic Gland	9	17	—	2	88	11	25	—	2	9	10	17	43	4	—	7	—
Supperation of Lymphatic Gland	2	7	32	2	1	4	5	—	—	—	2	4	—	1	—	1	—
Lymphangitis	—	—	—	—	1	—	—	—	1	—	—	—	8	—	—	—	—
Other Diseases	—	—	—	5	—	4	—	—	—	—	—	3	1	—	—	—	—
(9) Urinary System—																	
Acute Nephritis	—	—	—	—	—	1	—	—	—	—	—	2	—	—	—	—	—
Bright's Disease	—	3	—	—	—	—	—	—	1	—	1	5	—	3	—	1	—
Pyelitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Calculus	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Cystitis	—	1	1	6	5	4	—	—	—	—	1	—	1	1	—	1	—
Vesical Calculus	3	—	—	—	3	1	—	—	—	—	—	—	—	—	—	—	—
Suppression	1	2	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—
Hæmaturia	4	4	3	—	—	—	—	—	—	—	—	—	2	—	—	—	—
Chyluria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Others, Urinary System ..	3	—	5	1	—	1	—	—	—	—	—	2	—	4	—	—	3
Carried forward ..	2,593	2,413	6,004	929	16,207	3,062	5,613	619	1,788	1,685	1,775	4,018	2,413	1,416	342	1,251	1,264

TABLE XIV.—*continued.*

RETURN OF DISEASES (IN- AND OUT-PATIENTS) FOR THE YEAR 1924, BY STATIONS.—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Musoma.	Mwanza.	Namanyere.	Pangani.	Shinyanga.	Singida.	Songea.	Tabora.	Tanga.	Tukuyu.	Tunduru.	Ujiji.	Utete.	TOTAL.
Brought forward ..	1,980	1,692	6,128	1,310	3,657	2,436	1,154	1,088	1,177	3,650	3,168	4,435	7,649	686	1,361	6,275	93,521
Diarrhœa	31	484	135	94	194	215	27	91	51	104	208	144	269	55	28	84	3,944
Constipation	69	141	432	128	391	199	78	139	74	100	657	431	434	66	119	176	7,200
Colic	27	1	598	1	2	25	5	46	16	77	63	184	27	20	64	88	2,824
Hæmorrhoids	1	—	—	1	1	2	—	2	—	2	5	6	2	—	—	—	102
Pancreatitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hepatitis—																	
(*a*) Acute	—	—	15	1	2	—	1	2	—	—	7	4	—	—	—	—	85
(*b*) Abscess	—	—	—	—	—	2	—	1	—	—	—	—	—	—	—	—	7
Cirrhosis of Liver	—	—	1	—	3	—	3	—	4	—	—	5	1	—	—	4	38
Jaundice	—	—	1	—	6	6	1	—	1	1	50	5	—	1	—	2	135
Peritonitis	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	12
Ascites	1	1	1	1	3	—	3	—	1	2	—	—	—	—	—	—	41
Other Diseases, Digestive System	16	—	26	2	12	—	—	4	5	9	21	41	101	—	—	5	418
(8) Lymphatic Gland—																	
Inflammation, Lymphatic Gland	9	7	18	4	4	23	—	7	—	3	31	38	26	2	6	1	423
Supperation, Lymphatic Gland	5	—	4	2	5	1	—	1	—	—	13	7	9	7	—	—	115
Lymphangitis	—	—	—	—	—	—	10	—	—	—	1	2	—	—	—	—	23
Other Diseases	1	4	—	2	10	9	—	—	7	2	15	—	62	—	—	—	125
(9) Urinary System—																	
Acute Nephritis	—	—	1	—	1	—	—	—	—	—	1	4	—	—	1	—	11
Bright's Disease	—	—	—	—	2	—	3	—	1	—	2	4	1	—	—	—	27
Pyelitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Calculus	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	3
Cystitis	—	—	1	1	1	2	5	—	—	—	6	33	3	2	1	—	76
Vesical Calculus	—	—	—	—	—	—	—	—	1	—	—	2	—	—	—	—	10
Suppression	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5
Hæmaturia	—	—	—	—	2	1	—	—	—	—	2	—	—	—	—	—	18
Chyluria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Others, Urinary System ..	—	—	3	1	3	—	1	—	—	—	1	5	1	—	—	4	38
Carried forward ..	2,140	2,330	7,364	1,548	4,300	2,921	1,291	1,381	1,338	3,950	4,251	5,352	8,585	839	1,580	6,639	109,201

TABLE XIV.—*continued.*

RETURN OF DISEASES (IN- AND OUT-PATIENTS) FOR THE YEAR 1924, BY STATIONS—*continued.*

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hadji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilosa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.	Mafia.	Mahenge.	Mbulu.
Brought forward ..	2,593	2,413	6,004	929	16,207	3,062	5,613	619	1,788	1,685	1,775	4,018	2,413	1,416	342	1,251	1,264
(10) Generative System—																	
Male Organs—																	
Urethritis	1	—	1	—	102	6	12	—	—	—	1	—	2	2	—	—	—
Gleet	—	—	—	—	—	—	2	—	1	9	—	—	—	—	—	1	—
Stricture	3	1	68	2	4	1	—	—	—	—	—	1	—	—	—	1	—
Prostatitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Soft Chancre	12	4	42	—	20	1	12	—	1	5	3	—	10	1	2	3	—
Condyloma	—	—	1	—	1	2	3	—	—	7	4	—	—	—	—	1	—
Inflammation of Scrotum ..	—	2	—	—	—	—	7	—	—	—	—	—	—	—	—	—	—
Hydrocele	—	11	18	—	13	3	1	1	—	1	2	3	3	1	—	—	—
Orchitis	19	20	18	3	125	8	3	1	3	6	2	2	43	6	3	3	3
Epididymitis	2	2	—	2	4	6	—	—	—	1	—	—	4	1	—	—	—
Other Diseases	22	5	32	2	13	1	—	—	—	—	—	5	2	2	—	4	2
Female Organs—																	
Ovaritis	—	—	—	3	8	2	—	—	—	—	—	6	—	—	—	—	—
Ovarian Cyst	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Endometritis	—	—	—	1	—	—	—	—	1	—	—	1	—	—	—	—	—
Displacement of Uterus ..	—	—	3	—	—	—	1	—	3	—	—	—	—	—	—	2	1
Vaginitis	—	—	1	—	—	—	4	—	—	—	—	—	1	—	—	1	—
Amenorrhœa	—	—	—	5	—	1	4	—	—	—	—	2	—	—	—	3	—
Dysmenorrhœa	—	—	—	4	1	—	3	—	1	—	—	1	—	—	—	1	1
Menorrhagia	—	—	2	1	1	—	—	—	1	—	1	3	—	—	—	—	—
Leucorrhœa	4	1	3	1	14	—	13	—	—	—	—	—	—	—	—	—	—
Abortion	2	—	3	5	3	2	1	—	4	—	—	3	—	—	—	1	—
Delayed Labour	—	—	—	—	1	1	2	—	—	—	1	—	—	—	—	—	—
Postpartum Hæmorrhage ..	—	1	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—
Retained Placenta	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
Premature Birth	—	—	—	—	3	—	—	—	1	—	—	—	—	—	—	—	—
Puerperal Septicæmia ..	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Mastitis	2	1	5	6	—	2	11	—	3	4	1	1	—	1	—	—	—
Abscess of Breast	—	4	—	—	—	—	3	—	—	—	—	1	—	3	—	—	—
Other Diseases	11	—	1	59	12	—	—	—	2	—	—	7	—	—	—	—	5
Carried forward ..	2,673	2,465	6,202	1,079	16,532	3,100	5,695	621	1,817	1,718	1,791	4,055	2,478	1,433	347	1,272	1,276

TABLE XIV.—*continued.*

RETURN OF DISEASES (IN- AND OUT-PATIENTS) FOR THE YEAR 1924, BY STATIONS—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Musoma.	Mwanza.	Namanyere.	Pangani.	Shinyanga.	Singida.	Songea.	Tabora.	Tanga.	Tukuyu.	Tunduru.	Ujiji.	Utete.	TOTAL.
Brought forward ..	2,140	2,330	7,364	1,548	4,300	2,921	1,291	1,381	1,338	3,950	4,251	5,352	8,585	839	1,580	6,639	109,201
Urethritis	—	—	1	—	—	1	—	—	—	1	2	—	—	4	—	—	136
Gleet	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	16
Stricture	—	—	1	1	7	2	—	—	1	—	3	15	1	—	—	—	112
Prostatitis	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1
Soft Chancre	4	—	3	—	1	2	—	—	—	4	4	11	1	4	—	—	150
Condyloma	—	—	—	—	—	—	1	—	—	—	—	2	—	—	—	1	23
Inflammation of Scrotum ..	—	—	—	—	5	—	—	—	—	—	—	—	—	1	—	9	24
Hydrocele	—	—	2	—	36	1	10	—	—	1	21	66	9	3	—	24	230
Orchitis	11	12	14	1	8	4	6	8	—	25	23	61	4	—	2	—	447
Epididymitis	—	—	—	—	4	—	—	2	1	—	2	8	1	—	2	—	42
Other Diseases	—	—	4	—	21	—	2	—	2	—	16	15	3	—	—	—	153
Female Organs—																	
Ovaritis	—	—	—	—	—	—	3	—	—	—	1	—	—	—	—	—	23
Ovarian Cyst	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Endometritis	—	—	—	—	1	2	—	—	—	—	2	—	—	—	—	—	8
Displacement of Uterus ..	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	12
Vaginitis	—	—	1	—	—	—	—	—	—	—	—	1	1	—	—	—	10
Amenorrhœa	—	—	3	—	1	—	2	—	—	—	—	—	1	—	—	3	25
Dysmenorrhœa	—	—	—	4	1	32	4	1	—	—	—	6	9	1	—	—	70
Menorrhagia	—	—	—	2	1	2	—	1	—	—	2	1	—	—	—	2	20
Leucorrhœa	—	—	2	—	—	—	—	—	—	—	—	1	—	—	—	1	40
Abortion	—	—	2	1	1	2	—	—	—	—	1	—	—	—	—	—	31
Delayed Labour	—	—	—	1	—	1	—	—	—	—	1	—	3	2	—	1	14
Postpartum Hæmorrhage ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Retained Placenta	—	—	—	1	1	1	—	—	1	—	1	—	3	—	—	—	10
Premature Birth	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	5
Puerperal Septicæmia ..	—	—	—	—	1	2	—	1	—	—	—	—	—	—	—	—	6
Mastitis	—	—	1	1	1	11	—	—	1	—	4	—	10	—	—	—	66
Abscess of Breast	—	—	—	—	1	8	—	—	—	1	1	—	2	—	4	—	28
Other Diseases	—	—	25	1	8	5	1	—	—	3	8	14	2	—	—	—	235
Carried forward ..	2,155	2,342	7,425	1,561	4,399	3,001	1,320	1,394	1,344	3,985	4,352	5,553	8,636	854	1,588	6,680	111,143

TABLE XIV.—*continued.*

RETURN OF DISEASES (IN- AND OUT-PATIENTS) FOR THE YEAR 1924, BY STATIONS—*continued.*

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hadji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilosa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.	Mafia.	Mahenge.	Mbulu.
Brought forward ..	2,673	2,465	6,202	1,079	16,532	3,100	5,695	621	1,817	1,718	1,791	4,055	2,478	1,433	347	1,272	1,276
(11) Organs of Locomotion—																	
Osteitis	1	13	12	—	4	3	—	—	—	—	13	2	—	—	—	—	—
Arthritis	2	—	7	3	20	—	258	—	204	—	45	43	19	—	—	26	—
Bursitis	—	—	—	1	—	1	—	—	—	—	—	1	—	1	—	—	—
Myalgia	—	63	308	6	—	9	526	20	3	—	58	—	—	—	—	100	—
Lumbago	—	4	32	5	—	—	1	24	—	—	—	14	4	3	—	4	—
Rheumatism	130	86	53	—	21	21	—	3	—	—	2	285	111	—	11	1	—
Other Diseases	34	2	6	20	94	39	1	—	4	8	6	22	13	14	—	1	22
(12) Connective Tissue—																	
Cellulitis	4	61	65	4	33	30	13	1	11	1	72	7	95	7	—	4	—
Abscess	49	46	55	10	220	57	67	19	42	21	10	36	35	7	3	8	6
Other Diseases	—	9	2	12	500	16	—	—	—	3	—	24	—	6	—	—	1
(13) Diseases of Skin—																	
Urticaria	1	3	12	1	—	1	3	—	5	3	—	—	—	—	—	1	—
Eczema	7	23	24	18	130	31	51	4	7	—	26	39	8	5	8	14	2
Boil	33	41	20	11	232	33	79	27	7	16	39	23	3	12	18	33	11
Carbuncle	—	—	3	3	—	—	—	—	—	1	—	—	—	1	—	—	5
Herpes	—	2	—	1	1	1	2	—	—	—	1	1	1	—	—	2	7
Psoriasis	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
Oriental Sore	—	—	—	—	—	—	—	—	—	—	—	—	9	—	1	2	—
Tinea..	1	—	8	2	19	5	1	—	3	—	40	19	2	—	3	2	—
Scabies	7	40	468	4	355	56	718	53	73	28	136	248	104	40	13	177	197
Acne	—	4	—	6	—	—	—	—	1	1	—	—	3	—	—	—	—
Prickly Heat	—	4	—	7	4	—	—	—	—	—	—	—	2	—	1	—	—
Ulcer	693	942	1,325	11	1,563	347	714	16	194	1,254	624	303	469	252	—	35	261
Other Diseases	6	4	—	35	18	33	—	—	3	4	7	57	72	5	—	5	2
(e) *Injuries, General*	—	83	37	42	389	—	4	—	6	—	—	15	—	23	—	—	1
Local	427	222	567	78	1,636	520	1,157	190	469	213	285	280	360	264	107	377	230
Carried forward ..	4,069	4,119	9,206	1,359	21,771	4,363	9,290	978	2,849	3,271	3,155	5,474	3,788	2,073	512	2,065	2,021

TABLE XIV.—*continued.*

Return of Diseases (In- and Out-Patients) for the Year 1924, by Stations—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Musoma.	Mwanza.	Namanyere.	Pangani.	Shinyanga.	Singida.	Songea.	Tabora.	Tanga.	Tukuyu.	Tunduru.	Ujiji.	Utete.	Total.
Brought forward ..	2,155	2,342	7,425	1,561	4,399	3,001	1,320	1,394	1,344	3,985	4,352	5,553	8,636	854	1,588	6,680	111,143
(11) Organs of Locomotion—																	
Osteitis	—	4	1	—	5	44	1	1	1	—	—	2	11	—	—	—	118
Arthritis	1	—	4	1	—	—	6	1	—	7	8	141	10	6	6	2	820
Bursitis	1	—	—	—	—	—	—	—	—	1	4	—	5	1	—	—	16
Myalgia	13	105	91	—	—	—	—	128	—	—	245	220	475	—	—	11	2,381
Lumbago	10	—	24	—	—	—	—	—	4	18	11	2	—	—	3	12	175
Rheumatism	—	44	34	11	44	85	21	—	14	235	193	—	—	29	87	10	1,531
Other Diseases	13	—	26	7	109	—	11	2	30	48	58	29	46	—	—	—	665
(12) Connective Tissue—																	
Cellulitis	8	3	56	25	13	53	7	33	15	2	24	169	97	4	6	40	963
Abscess	102	39	59	20	81	17	25	29	24	35	54	106	123	8	59	16	1,488
Other Diseases	—	1	—	7	80	—	—	—	2	—	13	122	—	—	1	—	799
(13) Diseases of Skin—																	
Urticaria	—	—	7	—	3	—	1	1	—	—	4	6	21	—	1	—	74
Eczema	2	7	38	11	35	20	17	37	13	—	25	32	96	13	13	11	767
Boil	9	10	29	3	44	53	2	33	9	74	61	66	11	3	—	84	1,129
Carbuncle	—	—	—	—	—	—	—	—	—	—	5	—	1	1	—	1	21
Herpes	—	—	5	—	—	5	—	—	—	—	1	—	2	—	—	3	35
Psoriasis	3	—	—	—	—	1	17	—	—	—	3	2	—	—	—	—	30
Oriental Sore	—	—	4	—	—	—	10	11	—	—	—	—	—	—	—	—	37
Tinea	6	—	—	—	3	24	—	14	—	6	—	13	3	—	—	—	174
Scabies	144	60	106	51	122	201	20	259	99	374	66	87	419	39	325	78	5,167
Acne	—	—	—	—	—	1	—	—	—	—	—	3	—	—	—	—	19
Prickly Heat	—	—	—	—	—	—	—	—	—	—	2	4	—	—	—	2	26
Ulcer	802	561	1,643	—	924	307	532	188	322	982	309	1,182	607	468	844	275	18,949
Other Diseases	7	—	6	—	30	—	—	11	1	1	11	17	37	4	—	7	383
(*e*) *Injuries, General*	—	—	7	—	15	1	—	—	—	78	5	—	—	—	—	13	719
Local	352	236	1,138	234	604	467	250	377	294	67	1,413	538	933	146	191	199	14,821
Carried forward ..	3,628	3,412	10,703	1,931	6,511	4,280	2,240	2,519	2,172	5,913	6,867	8,294	11,533	1,576	3,124	7,444	162,450

TABLE XIV.—*continued.*

RETURN OF DISEASES (IN- AND OUT-PATIENTS) FOR THE YEAR 1924, BY STATIONS—*continued.*

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hadji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilosa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.	Mafia.	Mahenge.	Mbulu.
Brought forward ..	4,069	4,119	9,206	1,359	21,771	4,303	9,290	978	2,849	3,271	3,155	5,474	3,788	2,073	512	2,065	2,021
(*f*) *Tumours*	8	—	17	2	14	14	—	—	2	—	—	4	1	—	—	—	—
Papilomata	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Cancer, Breast	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(*g*) *Malformations*	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Genu Valgum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Terticolli	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(*h*) *Poisons*	—	—	—	7	—	2	—	—	2	—	1	—		—		1	—
Snake Bite	1	—	7	—	—	—	—	—	1	2	—	4	—	1		—	—
Ptomaine	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
(*i*) *Parasites, Animal*—																	
(1) Protozoa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(2) Trematoda (Flukes) ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(*a*) Schist. hœmatobium ..	—	—	—	—	13	1	—	—	—	—	6	—	—	—	—	—	—
(*b*) ,, mansoni	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
(*c*) Bilharziasis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(3) Cestoda—																	
Tænia Solium	—	9	90	3	54	14	—	—	2	—	—	—	—	—	—	10	—
,, Saginata	2	—	—	2	—	2	35	—	6	—	—	20	—	24	—	—	—
(4) Nematoda—																	
Ascaris	656	6	48	—	10	—	—	—	1	—	5	6	3	26	—	—	76
Tricocephalus Dispar ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filaria (*a*) m.f. Bancrofti ..	—	—	—	1	3	—	—	—	6	—	—	—	5	—	—	—	—
(i) Elephantiasis of Leg	—	32	—	—	1	—	—	—	4	1	—	4	2	1	—	—	—
(ii) ,, of Scrotum	—	6	10	—	24	—	1	—	2	—	3	1	1	—	—	—	—
(iii) Other	—	1	—	1	—	—	—	—	—	—	—	—	—	1	—	—	—
(*b*) f. medinensis (Guinea Worm)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(*c*) f. loa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strongylus	—	—	—	—	1	—	—	—	3	—	—	—	—	—	—	—	—
Carried forward ..	4,737	4,173	9,379	1,377	21,891	4,336	9,326	978	2,879	3,274	3,170	5,513	3,800	2,126	512	2,076	2,099

TABLE XIV.—*continued.*

RETURN OF DISEASES (IN- AND OUT-PATIENTS) FOR THE YEAR 1924, BY STATIONS—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Musoma.	Mwanza.	Namanyere.	Pangani.	Shinyanga.	Singida.	Songea.	Tabora.	Tanga.	Tukuyu.	Tunduru.	Ujiji.	Utete.	TOTAL.
Brought forward ..	3,628	3,412	10,703	1,931	6,511	4,280	2,240	2,519	2,172	5,913	6,867	8,294	11,533	1,576	3,124	7,444	162,450
(*f*) *Tumours*	—	4	21	1	17	3	2	1	2	5	13	7	32	—	1	—	171
Papilomata	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Cancer, Breast	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	2
(*g*) *Malformations*	—	—	1	—	2	—	—	—	—	—	1	—	—	—	—	—	8
Genu Valgum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Terticolli	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(*h*) *Poisons*	—	1	—	—	3	—	—	—	—	—	16	2	1	—	—	—	36
Snake Bite	—	1	—	1	1	3	—	—	—	—	—	1	—	—	—	16	39
Ptomaine	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
(*i*) *Parasites, Animal*	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1
(1) Protozoa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(2) Trematoda (Flukes) ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(*a*) Schist. hœmatobium ..	—	—	—	1	—	5	2	5	—	—	—	107	42	—	—	—	182
(*b*) ,, mansoni ..	—	—	—	1	2	2	—	—	—	—	—	—	—	—	—	—	6
(*c*) Bilharziasis	33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	33
(3) Cestoda—																	
Tænia Solium	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	182
,, Saginata	—	8	540	3	1	—	—	—	19	11	4	16	120	4	—	16	833
(4) Nomatoda—																	
Ascaris	—	—	200	—	—	8	2	—	—	—	2	—	21	26	—	—	1,096
Tricocephalus Dispar ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filaria (*a*) m.f. Bancrofti. .	—	—	—	—	—	—	—	—	—	—	—	—	—	19	—	—	34
(i) Elephantiasis of Leg	—	1	1	1	10	1	9	4	2	1	3	7	2	—	—	—	87
(ii) ,, of Scrotum	—	—	—	1	35	—	3	2	3	—	15	18	—	—	—	2	127
(iii) Other	—	—	—	—	6	—	—	1	2	—	3	1	3	—	—	—	19
(*b*) f. medinensis (Guinea Worm)	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	2
(*c*) f. loa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strongylus	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4
Carried forward ..	3,661	3,427	11,468	1,940	6,590	4,302	2,259	2,532	2,200	5,930	6,924	8,453	11,754	1,625	3,125	7,478	165,314

TABLE XIV.—*continued.*

RETURN OF DISEASES (IN- AND OUT-PATIENTS) FOR THE YEAR 1924, BY STATIONS—*continued.*

Disease.	Arusha.	Bagamoyo.	Bukoba.	European Hospital, Dar-es-Salaam.	Sewa Hadji Hospital, Dar-es-Salaam.	Dodoma.	Iringa.	Kahama.	Kigoma.	Kilosa.	Kilwa.	Kondoa-Irangi.	Lindi.	Lushoto.	Mafia.	Mahenge.	Mbulu.
Brought forward ..	4,737	4,173	9,379	1,377	21,891	4,336	9,326	978	2,879	3,274	3,170	5,513	3,800	2,126	512	2,076	2,099
Ankylostomiasis	12	213	—	9	233	5	1	5	19	206	200	68	7	10	—	2	—
Oxyuris	—	—	4	—	—	—	—	—	—	1	—	—	—	—	—	—	—
(5) Insecta—																	
Myiasis	1	—	—	7	2	—	—	—	—	—	1	—	—	—	—	—	—
Jigger (T. penetrans) ..	7	128	—	2	52	24	72	1	6	1	61	6	12	1	—	3	26
Scorpion's Sting	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—
Insect Bite																	
TOTAL	4,757	4,514	9,383	1,395	22,178	4,365	9,399	986	2,904	3,482	3,432	5,587	3,819	2,137	512	2,081	2,125

TABLE XIV.—*continued.*

RETURN OF DISEASES (IN- AND OUT-PATIENTS) FOR THE YEAR 1924, BY STATIONS—*continued.*

Disease.	Mikindani.	Morogoro.	Moshi.	Musoma.	Mwanza.	Namanyere.	Pangani.	Shinyanga.	Singida.	Songea.	Tabora.	Tanga.	Tukuyu.	Tunduru.	Ujiji.	Utete.	TOTAL.
Brought forward ..	3,661	3,427	11,468	1,940	6,590	4,302	2,259	2,532	2,200	5,930	6,924	8,453	11,754	1,625	3,125	7,478	165,314
Ankylostomiasis	30	79	43	13	—	27	357	1	—	5	5	1,370	—	11	—	43	2,974
Oxyuris	2	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	9
(5) Insecta	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	3
Myiasis	—	1	1	—	—	—	1	—	—	—	4	7	—	—	—	—	25
Jigger (T. penetrans) ..	94	—	8	—	2	—	86	—	—	—	4	12	22	—	75	—	705
Scorpion's Sting	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Insect Bite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL ..	3,787	3,507	11,520	1,953	6,595	4,329	2,703	2,533	2,200	5,935	6,937	9,843	11,777	1,636	3,200	7,521	169,032

TABLE XV.

SURGICAL OPERATIONS, 1924.

	Total.	Successful.	Improved.	Unsuccessful.	Died.	Remaining.	Remarks.
Abscess	74	74	—	—	—	—	
,, Alveolar	1	1	—	—	—	—	
,, Breast	5	5	—	—	—	—	
,, Extraperitoneal	1	1	—	—	—	—	
,, Ischio-Rectal	5	5	—	—	—	—	
,, Liver	4	3	—	—	1	—	Opened and drained.
,, Mastoid	4	2	—	—	—	2	One case was operated on twice.
,, Periurethral	3	3	—	—	—	—	
,, Perineal	1	1	—	—	—	—	
,, Psoas	1	1	—	—	—	—	
,, Subphrenic	1	1	—	—	—	—	
Other situations	26	26	—	—	—	—	
Adhesion of Joints	1	1		—	—	—	
Amputations—							The majority of amputations were for gangrene following injuries.
Finger	19	19	—	—	—	—	One for a supernumerary digit.
Hand	1	1	—	—	—	—	
Forearm	1	1	—	—	—	—	
Arm	6	6	—	—	—	—	
Toe	8	8	—	—	—	—	
Foot	3	3	—	—	—	—	
Leg	9	9	—	—	—	—	One Neurosis of Tibia.
Thigh	4	3	—	—	1	—	
Anthrotomy	1	1	—	—	—	—	
Ankle	1	—	—	1	—	—	Invalided.
Wrist Joint	1	—	1	—	—	—	
Elbow	2	1	1	—	—	—	
Knee	1	1	—	—	—	—	
Carbuncle	1	1	—	—	—	—	
Curettage	9	9	—	—	—	—	
Cyst, Hypoglossal	1	1	—	—	—	—	
,, Dermoid	1	1	—	—	—	—	
,, Other situations	5	5	—	—	—	—	
Carried forward	201	194	2	1	2	2	

TABLE XV.—*continued.*

SURGICAL OPERATIONS, 1924—*continued.*

	Total.	Successful.	Improved.	Unsuccessful.	Died.	Remaining.	Remarks.
Brought forward	201	194	2	1	2	2	
Cystotomy Supra-pubic	1	—	—	—	1	—	The calculus removed weighed 5½ ozs., composed of a nucleus of Uric Acid with an outer covering layer of Phosphates of Ammonia.
Circumcision	114	114	—	—	—	—	Chiefly for Phymosis sequent on venereal disease. One for Paraphymosis.
Craniotomy	1	1	—	—	—	—	
Cellulitis, Free Incision	21	21	—	—	—	—	
Colporrhaphy	1	1	—	—	—	—	For prolapsed uterus.
Excision of Testes	2	2	—	—	—	—	Testicles removed in both cases for Gangrene.
Dislocation, Wrist	1	1	—	—	—	—	Both by open reduction.
,, Jaw	1	1	—	—	—	—	
Elephantiasis of Penis	7	7	—	—	—	—	
,, ,, Scrotum	59	58	—	—	1	—	
,, ,, Vulva	1	1	—	—	—	—	
Empyema, Drained	1	—	—	—	1	—	Rib resected.
Excision of Joints, Ankle	1	—	—	—	1	—	Tuberculosis (?).
,, ,, Elbow	1	1	—	—	—	—	
Eye, Cataract	10	10	—	—	—	—	
,, Staphyloma of Cornea	2	2	—	—	—	—	
,, Iridectomy	2	2	—	—	—	—	Both iridectomies were performed for Glaucoma.
,, Pterygium	1	1	—	—	—	—	
Fistula, Perineal	1	1	—	—	—	—	
,, Vesico-Vaginal	1	—	1	—	—	—	
Fractures and Dislocations, Reduction and setting of.	19	17	—	—	1	1	Including two fractured patellæ, and two dislocations of the Elbow, one Dislocation of Internal Semilunar Cartilage.
,, Compound, Removal of Bone ..	1	1	—	—	—	—	Multiple wounds, with fracture of Skull.
,, ,, ...	2	2	—	—	—	—	Incision and drainage.
Fissure of Ano	1	1	—	—	—	—	
Glands, Excision	32	32	—	—	—	—	Several for Tuberculosis.
Ganglion, Excision	1	1	—	—	—	—	
Hæmorrhoids, Ligature and Excision	3	3	—	—	—	—	
Carried forward	489	475	3	1	7	3	

TABLE XV.—*continued.*

Surgical Operations, 1924—*continued.*

	Total.	Successful.	Improved.	Unsuccessful.	Died.	Remaining.	Remarks.
Brought forward	489	475	3	1	7	3	
Hœmatoma	1	1	—	—	—	—	
Hœmatocele, Excision of Sac	5	5	—	—	—	—	
Hernia Inguinal, Radical Cure	56	53	—	—	3	—	One died of Pneumonia, one Malignant Growth of Liver, one Peritonitis.
,, ,, Reduction	1	1	—	—	—	—	
,, Strangulated	5	2	—	—	3	—	Two strangulated Gangrenous Hernia with artificial anus—both died. Strangulated Hernia of Cœcium and Appendix—Appendix removed and Hernia reduced.
,, Ventral	1	1	—	—	—	—	
Hydroceles, Tapping	3	—	3	—	—	—	—
,, Radical Cure	79	79	—	—	—	—	
Ingrowing Toenail	1	1	—	—	—	—	
Laporotomy, Exploratory	1	1	—	—	—	—	
,, for Ovaritis	1	1	—	—	—	—	
,, Tubercular Peritonitis	1	1	—	—	—	—	Pus drained.
,, for Neoplasm	4	4	—	—	—	—	One Tumour attached region of Pancreas and contained material sebaceous in character. One invalided for Inoperable Tumour of Pylorus. One Cystic Tumour connected with Liver. One Ovarian Cyst. One Ruptured Gastric Ulcer, died.
,, Gastric Ulcer	1	—	—	—	1	—	
Laparotomy for Wounds	1	1	—	—	—	—	
Lumbar Puncture	1	1	—	—	—	—	
Mastitis Schwartz Operation	1	1	—	—	—	—	
Minor Operations	44	44	—	—	—	—	
Neoplasms, Excision, Epithelioma	1	1	—	—	—	—	One of Lip.
,, ,, Fibroma	11	11	—	—	—	—	
,, ,, Fribrochondroma, Neck .	1	1	—	—	—	—	
,, ,, Sarcoma	3	3	—	—	—	—	Eye excised in two cases for recurrent Sarcoma. One, a child, died nine months later.
,, ,, Melanotic Sarcoma ..	1	1	—	—	—	—	
,, ,, Malignant, involving Scrotum	1	—	1	—	—	—	
Carried forward	714	689	7	1	14	3	

TABLE XV.—*continued.*

SURGICAL OPERATIONS, 1924.—*continued.*

	Total.	Successful.	Improved.	Unsuccessful.	Died.	Remaining.	Remarks.
Brought forward	714	689	7	1	14	3	
Neoplasms, Excision, Lipoma	7	7	—	—	—	—	
,, ,, Bursa of Knee	1	1	—	—	—	—	
,, ,, Other forms	20	20	—	—	—	—	One Malignant Tumour, L. Male Breast. Others were mostly for Keloids.
Necrosis of Bone, Tibia	2	2	—	—	—	—	
,, ,, Femur	2	2	—	—	—	—	
Paracentesis Abdominis	6	—	6	—	—	—	
Pyosalpynx	1	1	—	—	—	—	Laparotomy and Drainage.
Resection, Clavicle	1	1	—	—	—	—	Old Gunshot Wound.
Suppuration of Knee	1	1	—	—	—	—	Incision and Drainage.
Sequestrectomy	2	2	—	—	—	—	
,, Metacarpus	1	1	—	—	—	—	
,, Metatarsus	1	1	—	—	—	—	
,, Superior Maxilla	1	1	—	—	—	—	
,, Tibia	5	5	—	—	—	—	
,, Oscalsis	2	2	—	—	—	—	
Stricture Urethræ, Dilatation	41	41	—	—	—	—	One Urinary Fistula stitched; four with Extravasation. No less than 38 cases recorded for the Bukoba district.
,, ,, External Urethrotomy ..	2	2	—	—	—	—	
Tenotomy	1	1	—	—	—	—	Double Congenital Talipes Equins-Varus.
Ulcers, Curetting	70	70	—	—	—	—	Chiefly for Callous Ulcers.
,, Grafts	1	1	—	—	—	—	Leg.
Wounds	30	28	—	—	2	—	One required suture of Tendo-Achillis; one, cut throat, died; one due to crocodile bite; one due to leopard bite; four required removal of foreign bodies.
,, Extension of Abdominal Viscera ..	1	1	—	—	—	—	Exploration and suture.
,, Arrow-head embedded in L. Temporal Region.	1	1	—	—	—	—	Removed.
,, Right Lung	1	—	—	—	1	—	Stab wound.
GRAND TOTAL	915	881	13	1	17	3	

APPENDIX I.

GOVERNMENT DENTAL SURGEON'S REPORT FOR 1924, BY H. M. FISHER, ESQ., L.D.S., R.C.S.

The writer returned from leave on January 4th, 1924, from that date to the end of the year the following dental operations were performed, the list below refers to the European Officials and their families only of the Territory.

Attendances	1,440
Fillings, crowns, etc.	616
Extractions	371
Pulp treatment	89
Scaling, etc.	118
Dentures	42
Repairs to dentures	57

Comparing this list with those of previous years, it will be seen that the work has increased considerably. Mechanical work occupies a great deal of the writer's time; much time out of Official hours has been spent in doing it.

Eighty-four days were spent in travelling and visiting out-stations, the following were visited:—

In May	Tanga, Lushoto
June	Arusha, Moshi
August	Dodoma, Kigoma, Tabora
September	Mwanza
October	Zanzibar

A number of Zanzibar Officials have attended here for treatment during the year, the list below shows the work done for them here, and during the visit to Zanzibar:—

Attendances	70
Fillings	46
Extractions	9
Pulp treatment	11
Scalings	17
Repairs to dentures	3

The Asiatic Officials have been treated on those occasions on which they have presented themselves for treatment.

A number of natives from the K.A.R., Police and various Government Departments have been treated and also some of the native population.

About fifty children from the School have been attended to, and also some of the children from the K.A.R. lines, although most of the work for these children consisted of extractions and scalings, some conservative work was done for them.

It will be seen from the Government Dentist's report that a great increase in the work has taken place since his first report for the year 1921.

	1921.	1924.
Attendances	580	1,440
Fillings, crowns, etc.	278	616
Extractions	189	371
Scaling, etc.	90	118
Pulp Treatment	53	89
Dentures	36	42
Repairs to Dentures	40	57

A gratifying feature to which I attach importance is the attention that has been given to dental work in connection with African schoolboys and children generally. In order to provide better facility for both the European communities, at Dar-es-Salaam and Zanzibar, and the African native, an assistant dental surgeon has been asked for in the estimates for 1925-26.

J. O. S.

APPENDIX II.

REPORT ON PRISONS BY STATIONS.

	Arusha.	Bagamoyo.	Bukoba.
1. Number of Prisoners in Prison on 31/12/23	49	44	135
2. Number of Persons committed to Prison during 1924	277	191	412
3. Number of Prisoners in Prison on 31/12/24	84	19	112
4. Daily average number of Prisoners, 1924	36	32	117
5. Number admitted to Prison Sick-bay, 1924	—	11	—
6. Number admitted to Native Hospital, 1924	93	1	96
7. Daily average on Sick List ..	2·6	1·8	21
8. Number of Deaths of Prisoners, 1924	1	Nil	3
9. (*a*) Cause of Death in each case (i) ..	Mediastinal-Tumour Fibroma	—	Phthisis
(ii) ..	—	—	Dysentery
(iii) ..	—	—	Gonorrhœal Cystitis
(iv) ..	—	—	—
(v) ..	—	—	—
(vi) ..	—	—	—
vii) ..	—	—	—
(viii) ..	—	—	—
(ix) ..	—	—	—
(x) ..	—	—	—
(xi) ..	—	—	—
(xii) ..	—	—	—
(xiii) ..	—	—	—
(xiv) ..	—	—	—
9. (*b*) Period of detention in Prison prior to date of Death (i) ..	252 days	Nil	—
(ii) ..	—	—	—
(iii) ..	—	—	—
(iv) ..	—	—	—
(v) ..	—	—	—
(vi) ..	—	—	—
(vii) ..	—	—	—
(viii) ..	—	—	—
(ix) ..	—	—	—
(x) ..	—	—	—
(xi) ..	—	—	—
(xii) ..	—	—	—
(xiii) ..	—	—	—
(xiv) ..	—	—	—

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Arusha.	Bagamoyo.	Bukoba.
10. Prisoners released on medical grounds, 1924. Cause of release in each instance	Nil	Nil	—
11. System of confinement—Association Cells (A.C.) or Single Cells (S.C.)	A.C.	A.C.	A.C. & S.C.
12. Cubic space available at night per Prisoner, taking average number	320 cub. ft.	468·8 cub. ft.	—
13. Floor space in square feet per Prisoner, taking average number of Prisoners	28 sq. ft.	39·4 sq. ft.	—
14. Labour on which Prisoners are employed, and hours of work ..	Wood cutting, mending roads, sanitary work in gaol, water carrying, from 6 a.m. to 5 p.m. Sat., 6 a.m. to 12 a.m. No work on Sundays. Break of one hour each mid-day.	Road making, wood cutting, white washing, agricultural work, sewing clothes, etc., 6 a.m. to 12 noon, and 2 p.m. to 4 p.m.	—
15. Sanitary condition of Prison ..	Very good	Very good	—
16. Are floors of Cells cemented? ..	In course of construction	Yes	—
17. Prevailing Diseases	Bronchitis 11 cases, Influenza 11 cases, Bronchial catarrh 4 cases, Dysentery (amœbic) 1 case, Diarrhœa 15, Colic 6, Malaria B T. 3, and Ulcer 4.	Malaria, ulcers, etc.	—
18. Rules as to diet and hours of meals. What variety is provided—green food? meat?	According to Prison Ordinance.	5.30 a.m., 12.30 p.m., 4.30 p.m., mealie-meal, beans, mtama, mohogo, ghee, salt, fish, sometimes green vegetables.	—

APPENDIX II—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Arusha.	Bagamoyo.	Bukoba.
19. Vaccinations: number vaccinated, 1924	102	12	—
Results—Successful	47	5	—
Modified	—	3	—
Failures	55	4	—
Number excused vaccination on account of previous small-pox or successful recent vaccination	—	—	—
Number not protected against small-pox	—	—	—
20. Infective Diseases: number of cases of	—	Nil.	—
Chicken-pox	1, Death nil.	—	—
Dysentery	1 (amœbic), Death nil.	—	—
Influenza	11, Deaths nil.	—	—
Other	—	—	—
21. Insect and other Pests in Prison—			
Lice	There have been no complaints as to Lice, Bugs, etc.	Nil.	—
Bugs		—	—
Fleas		—	—
Ornithodorus Moubata	—	—	—
Rats	Rats and mice fairly numerous.	—	—
Mice		—	—
22. Suggestions by Medical Officer in charge as to improvements required, and date when made	—	Nil.	—
(*a*) Accommodation, ventilation, etc.	Nil.	—	—
(*b*) Diet	—	—	—
(*c*) Sanitation	Nil.	Nil.	—
(*d*) Other matters	Nil.	—	—
23. Action taken by Prison Authorities as a result of 22 (*a*)	Carried out, viz., Medical Returns for 1923.	Nil.	—
(*b*)	—	—	—
(*c*)	—	—	—
(*d*)	—	—	—
24. What sanitary arrangements are there in the cells for use at night?	Sanitation buckets in each cell at night.	Latrine bucket for each cell for night soil.	—
25. Is drinking water provided for use at night?	Yes.	Yes.	—
26. Is there a weight register, and is it up to date?	Yes.	Yes.	—
27. What number of blankets is provided for each Prisoner?	Three.	One blanket and one mat.	—
Is the clothing sufficient?	Yes.	Yes.	—
28. Further remarks and suggestions	Nil.	Nil.	—

APPENDIX II—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Dar-es-Salaam.	Dodoma.	Iringa.
1. Number of Prisoners in Prison on 31/12/23	146	79	57
2. Number of Persons committed to Prison during 1924	940	366	280
3. Number of Prisoners in Prison on 31/12/24	197	120	40
4. Daily average number of Prisoners, 1924	208	92·6	39·33
5. Number admitted to Prison Sick-bay, 1924	126	160	—
6. Number admitted to Native Hospital, 1924	54 (Included 10 to Isolation Hospital)	—	2
7. Daily average on Sick List ..	7	3.90	0.04
8. Number of Deaths of Prisoners, 1924	6	Nil.	Nil.
9. (*a*) Cause of Death in each case (i) ..	Ankylostomiasis & Heart Failure.	—	–
(ii) ..	Ankylostomiasis.	—	—
(iii) ..	Ankylostomiasis II Filariasis.	—	—
(iv) ..	Chronic Bronchitis.	—	—
(v) ..	Ankylostomiasis & Heart Failure.	—	—
(vi) ..	Dysentery, Ankylostomiasis & Heart Failure.	—	—
(vii) ..	—		—
(viii) ..	—	—	—
(ix) ..	—	—	—
(x) ..	—	—	—
(xi) ..	—	—	—
(xii) ..	—	—	—
(xiii) ..	—	—	—
(xiv) ..	—	—	—
9. (*b*) Period of detention in Prison prior to date of death (i) ..	1 year, 23 days.	—	—
(ii) ..	1 yr.,7 mths., 3 days	—	—
(iii) ..	3 yrs.,6 mths.,5 days	—	—
(iv) ..	7 mths., 10 days.	—	—
(v) ..	1 yr.,4mths.,23 days	—	—
(vi) ..	6 mths., 23 days.	—	—
(vii) ..	—	—	—
(viii) ..	—	—	—
(ix) ..	—	—	—
(x) ..	—	—	—
(xi) ..	—	—	—
(xii) ..	—	—	—
(xiii) ..	—	—	—
(xiv) ..	—	—	—
10. Prisoners released on medical grounds, 1924. Cause of release in each instance	2	1	Nil.

APPENDIX II—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Dar-es-Salaam.	Dodoma.	Iringa.
11. System of confinement—Association Cells (A.C.) or Single Cells (S.C.)	With exception of 2 cells for solitary confinement, all are Association Wards.	A. Wards.	Separate system.
12. Cubic space available at night per Prisoner, taking average number	500 cub. ft.	360 cub. ft.	784 cub. ft.
13. Floor space in square feet per Prisoner, taking average number of Prisoners	—	38·63 sq. ft.	60 sq. ft.
14. Labour on which Prisoners are employed, and hours of work	Wood cutting, tailoring, carpentry, stone quarrying, mat-weaving, 6.30 a.m. to 12 noon, 1 p.m. to 4 p.m. Saturday 6.30 a.m. to 12 noon.	Township improvements, erection of buildings, lime burning & carrying water and firewood.	Prison shamba work, cutting firewood and cooking, 6.30 a.m. to 12 noon, 1 p.m. to 4 p.m.
15. Sanitary condition of Prison ..	Good.	Good.	Good.
16. Are floors of Cells cemented ? ..	Yes.	Yes.	Yes.
17. Prevailing Diseases	Bronchial catarrh, Malaria, superficial cuts, and Venereal.	Malaria, Diarrhœa and Cough.	Bronchial catarrh, Malaria, & Injuries.
18. Rules as to diet and hours of meals. What variety is provided—green food ? meat ?	3 meals daily in accordance with Prison Regulations —6 a.m., 12 noon, 5 p.m.—maize, meal, mtama, sweet potatoes, meat (long term prisoners).	Mon., Wed., Fri., Sat.—Morning, ugali; noon, mtama, meal, with beans & ghee; evening ditto. Tues., Thurs., Sun. —Morning, mohogo; noon, beans, with ghee; evening, mohogo, with meat and green vegetables.	Rice and beans are given daily, besides mealie-meal, mohogo and salt. Meat 3 times a week. For long term prisoners ghee every day or meat. Green vegetables are supplied when available. Hours of meals, 6 a.m., 12 noon, and 5 p.m.
19. Vaccinations : number vaccinated, 1924	Nil.	437	280
Results—Successful	—	350	118
Modified	—	87	141
Failures	—	—	21
Number excused vaccination on account of previous small-pox or successful recent vaccination	Nil.	—	—
Number not protected against small-pox	Nil.	—	—

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Dar-es-Salaam.	Dodoma.	Iringa.
20. Infective Diseases, Number of cases of ..	—	—	Nil.
Chicken-pox ..	—	—	—
Dysentery ..	—	3 (Amœbic)	—
Influenza ..	—	—	—
Other ..	10 cases admitted to Isolation Hospital suffering from Mumps.	Pneumonia 6, Gonorrhœa 3, Syphilis II 2, T.B. Lungs 2, and Yaws 3.	
21. Insect and other Pests in Prison —			
Lice ..	No.	—	No.
Bugs ..	—	—	—
Fleas ..	—	—	—
Ornithodorus Moubata ..	—	—	—
Rats ..	—	—	—
Mice ..	—	—	—
22. Suggestions by Medical Officer in charge as to improvements required, and date when made	—	—	Nil.
(*a*) Accommodation, ventilation, etc. ..	—	—	—
(*b*) Diet ..	—	—	—
(*c*) Sanitation ..	Straw under roof of cuttingroom recommended to be taken away.	—	—
(*d*) Other matters ..	—	—	—
23. Action taken by Prison Authorities as a result of 22—(*a*) ..	—	—	Nil.
(*b*) ..	—	—	—
(*c*) ..	Carried out.	—	—
(*d*) ..	—		—
24. What sanitary arrangements are there in the Cells for use at night ?	Latrine buckets are placed in wards & cells every night.	Urine drums and pans.	Buckets.
25. Is drinking water provided for use at night ? ..	Yes.	Yes.	Yes.
26. Is there a weight register, and is it up to date ? ..	Yes.	Yes.	Yes.
27. What number of blankets is provided for each Prisoner ?	One blanket, one sleeping mat.	One blanket and cocoanut matting, which is insufficient in cold seasons, should be provided with 2 each in the night time.	One; and, in certain cases, two.
Is the clothing sufficient ? ..	Yes.	—	Yes.
28. Further remarks and suggestions ..	—	I have usually found convicts in dirty clothing on account of insufficient supply of soap.	Nil.

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Kahama.	Kigoma.	Kilosa.
1. Number of Prisoners in Prison on 31/12/23	—	362	8
2. Number of Persons committed to Prison during 1924	76	260	309
3. Number of Prisoners in Prison on 31/12/24	20	105	9
4. Daily average number of Prisoners, 1924	17·3	87·56	10.
5. Number admitted to Prison Sick-bay, 1924	—	45	Nil.
6. Number admitted to Native Hospital, 1924	—	5	1
7. Daily average on Sick List ..	0·3	1·49	0·001
8. Number of Deaths of Prisoners, 1924	Nil.	—	Nil.
9. (*a*) Cause of Death in each case (i) ..	—	—	—
(ii) ..	—	—	—
(iii) ..	—	—	—
(iv) ..	—	—	—
(v) ..	—	—	—
(vi) ..	—	—	—
(vii) ..	—	—	—
(viii) ..	—	—	—
(ix) ..	—	—	—
(x) ..	—	—	—
(xi) ..	—	—	—
(xii) ..	—	—	—
(xiii) ..	—	—	—
(xiv) ..	—	—	—
9. (*b*) Period of detention in Prison prior to date of death (i) ..	—	—	Nil.
(ii) ..	—	—	—
(iii) ..	—	—	—
(iv) ..	—	—	—
(v) ..	—	—	—
(vi) ..	—	—	—
(vii) ..	—	—	—
(viii) ..	—	—	—
(ix) ..	—	—	—
(x) ..	—	—	—
(xi) ..	—	—	—
(xii) ..	—	—	—
(xiii) ..	—	—	—
(xiv) ..	—	—	—
10. Prisoners released on medical grounds, 1924. Cause of release in each instance	Nil.	—	Nil.
11. System of confinement—Association Cells (A.C.) or Single Cells (S.C.)	A.C., women and juveniles occupy separate cells.	A.C.	A.C.
12. Cubic space available at night per Prisoner, taking average number	650 cub. ft.	498·22 cub. ft.	449 cub. ft.

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Kahama.	Kigoma.	Kilosa.
13. Floor space in square feet per Prisoner, taking average number of Prisoners	50 sq. ft.	55 sq. ft.	60 sq. ft.
14. Labour on which Prisoners are employed, and hours of work	Supplying prison with wood & water. Repairs to the jails, etc. Cleaning roads in township, and sanitary labour generally.	Wood cutting, road making, sanitary work, township improvements, grass and bush cutting, upkeep of station. Hours, 6.30 to noon and 1 p.m. to 4 p.m.	Carrying wood and water for European Officials, & clearing grass, etc., from 6.30 a.m. to 12 noon and 1 p.m. to 4 p.m.
15. Sanitary condition of Prison ..	Good.	Good.	Good.
16. Are floors of Cells cemented? ..	No.	Yes, completed this year.	Yes.
17. Prevailing Diseases	Slight malarial attacks.	Malaria, Bronchitis, Injuries, Coughs, Constipation, Scabies, rheumatic pains in joints and muscles, and Digestive derangements.	Nil.
18. Rules as to diet and hours of meals. What variety is provided—green food? meat?	3 meals per day—6.30 a.m., 12 noon, 6 p.m. Food issued in accordance with dietary scale laid down for all prisoners.	3 meals per day—6 a.m., 12 noon, 4.30 p.m. Diets are changed on Tues., Thurs., and Suns. Mealie-meal, manioc flour, germinated beans, Uncooked manioc, sweet potatoes, salt and limejuice. Machicha (native spinach), recommended and provided. Meat, long-term prisoners ½ lb. twice a week, short-term prisoners none.	½ lb. of maize, ½ lb. of mealie meal, and ½ lb. of beans and ¼ oz. salt, maize and mtama issued alternative days. No meat is given. One cocoanut per head per week.
19. Vaccinations: number vaccinated, 1924	Nil.	179	65
Results—Successful	—	84%	45
Modified	—	5%	8
Failures	—	11%	12
Number excused vaccination on account of previous small-pox or successful recent vaccination	N.A.	128	179
Number not protected against small-pox	N.A.	—	Nil.
20. Infective Diseases, Number of cases of	Nil.	—	—
Chicken-pox	—	—	—
Dysentery	—	—	—
Influenza	—	3	—
Other	—	Syphilis 3, Yaws 2, and Pyogen, Abscess 1.	

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Kahama.	Kigoma.	Kilosa.
21. Insect and other Pests in Prison— Lice . . . . Bugs . . . . Fleas . . . . Ornithodorus Moubata . . Rats . . . . Mice	No.	Lice, bugs & fleas, which are occasionally present, are dealt with in clothing by washing, boiling, & frequent exposing to sun; in cells by swamping of the floor with water and Jeyes and whitewashing. The heads & bodies are regularly shaved. Lower portion of the walls are painted with coal tar.	Bugs only; walls are washed with disinfectant.
22. Suggestions by Medical Officer in charge as to improvements required, and date when made	Everything satisfactory; nothing for suggestion.	Additional accommodation & ventilation has been recommended, and has been completed.	Nil.
(*a*) Accommodation, ventilation, etc.	—	—	—
(*b*) Diet	—	The regular setting of mice traps, January, 1924.	—
(*c*) Sanitation	—	Additional drains and soakage pit, January, 1924.	
(*d*) Other matters	—	—	—
23. Action taken by Prison Authorities as a result of 22—(*a*) . .	—	Taken.	Nil.
(*b*)	—	Taken.	—
(*c*)	—	Taken.	—
(*d*) . .	—	—	—
24. What sanitary arrangements are there in the Cells for use at night?	Ample for purposes of relieving nature.	Sufficient buckets in each cell.	Soil bin is placed in each occupied cell at night.
25. Is drinking water provided for use at night?	Yes.	Yes.	Yes.
26. Is there a weight register, and is it up to date?	No weight register is kept.	Yes.	No.
27. What number of blankets is provided for each Prisoner? . .	One.	One.	One blanket per prisoner.
Is the clothing sufficient? . .	Yes.	Yes.	Yes.
28. Further remarks and suggestions . .	Nil.	A large jail should be built at Kigoma, in order to give this township the benefit of prison labour, and thereby improve the sanitation of Kigoma, which has a big European & Asiatic population, out of all comparison to Ujiji.	The roofs of the prison may be raised to the height of 12 to 15 ft. if possible and practicable. (2) The register of diet and nominal roll and register of daily labour should be kept in the jail.

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Kilwa.	Kondoa-Irangi.	Lindi.
1. Number of Prisoners in Prison on 31/12/23	28	46	50
2. Number of Persons committed to Prison during 1924	176	79	264
3. Number of Prisoners in Prison on 31/12/24	25	33	50
4. Daily average number of Prisoners, 1924	30	30·4	47·06
5. Number admitted to Prison Sick-bay, 1924	Nil.	—	50
6. Number admitted to Native Hospital, 1924	3.	170	44
7. Daily average on Sick List ..	2	3·7	10·3
8. Number of Deaths of Prisoners, 1924	Nil.	1	2
9. (*a*) Cause of Death in each case (i) ..	—	Lobar-Pneumonia.	Anæmia.
(ii) ..	—	—	Mania.
(iii) ..	—	—	—
(iv) ..	—	—	—
(v) ..	—	—	—
(vi) ..	—	—	—
(vii) ..	—	—	—
(viii) ..	—	—	—
(ix) ..	—	—	—
(x) ..	—	—	—
(xi) ..	—	—	—
(xii) ..	—	—	—
(xiii) ..	—	—	—
(xiv) ..	—	—	—
9. (*b*) Period of detention in Prison prior to date of death (i) ..	Nil.	—	22/2/24 to 1/3/24.
(ii) ..	—	—	26/8/23 to 9/1/24.
(iii) ..	—	—	—
(iv) ..	—	—	—
(v) ..	—	—	—
(vi) ..	—	—	—
(vii) ..	—	—	—
(viii) ..	—	—	—
(ix) ..	—	—	—
(x) ..	—	—	—
(xi) ..	—	—	—
(xii) ..	—	—	—
(xiii) ..	—	—	—
(xiv) ..	—	—	—

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Kilwa.	Kondoa-Irangi.	Lindi.
10. Prisoners released on medical grounds, 1924. Cause of release in each instance	Nil.	1	Nil.
11. System of confinement—Association Cells (A.C.) or Single Cells (S.C.)	A.C.	A.C.	A.C.
12. Cubic space available at night per Prisoner, taking average number	643 cub. ft.	—	844 cub. ft.
13. Floor space in square feet per Prisoner, taking average number of Prisoners	75 sq. ft.	—	61 sq. ft.
14. Labour on which Prisoners are employed, and hours of work	Prison shamba station and town improvements, wood cutting, lime burning, and roads, from 6 a.m. to 12 noon, and 2 p.m. to 4.30 p.m.	—	Tailoring, grass and woodcutting, building operations.
15. Sanitary condition of Prison ..	Good.	—	Satisfactory.
16. Are floors of Cells cemented? ..	Yes.	Yes.	Yes.
17. Prevailing Diseases	Malaria, Bronchitis, and minor injuries.	—	Malaria, Influenza, Iritis, Bronchitis, Conjunctivitis, Diarrhœa, Ulcers & Constipation.
18. Rules as to diet and hours of meals. What variety is provided—green food? meat?	As per Prison Ordinance of 1921—3 meals a day at regular hours. Green food and fish are provided. Meat not available at Kilwa.	—	3 per diem—6 a.m., 12 noon, 5.30 p.m. Meat, nil; mealiemeal, fish, ghee, limes, mohogo.
19. Vaccinations: number vaccinated, 1924	Nil.	—	97
Results—Successful	—	—	—
Modified	—	—	—
Failures	—	—	—
Number excused vaccination on account of previous small-pox or successful recent vaccination	202	—	All prisoners vaccinated on admission if not previously protected.
Number not protected against small-pox	—	—	—

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Kilwa.	Kondoa-Irangi.	Lindi.
20. Infective Diseases, Number of cases of	Nil.	—	—
Chicken-pox	—	—	—
Dysentery	-	—	—
Influenza	—	—	51
Other	—	—	—
21. Insect and other Pests in Prison—			
Lice	Nil.	—	No.
Bugs	—	—	—
Fleas	—	-	—
Ornithodorus Moubata ..	—	—	—
Rats	—	—	—
Mice	—	—	—
22. Suggestions by Medical Officer in charge as to improvements required, and date when made	Nil.	-	Relaying floor and cementing walls of cells.
(*a*) Accommodation, ventilation, etc.	—	—	—
(*b*) Diet	Nil.	—	—
(*c*) Sanitation	Nil.	—	—
(*d*) Other matters	Nil.	—	—
23. Action taken by Prison Authorities as a result of 22—(*a*) ..	Nil.	General improvements effected during the year.	These are in process of completion.
(*b*)	—	—	—
(*c*)	—	—	—
(*d*) ..	—	—	—
24. What sanitary arrangements are there in the Cells for use at night ?	There are sanitary arrangements in the cells for use at night.	—	Latrine is at hand.
25. Is drinking water provided for use at night ?	Yes.	—	Yes.
26. Is there a weight register, and is it up to date ?	Yes.	—	No.
27. What number of blankets is provided for each Prisoner ? ..	One blanket and sleeping mat.	—	One, and ground sheet.
Is the clothing sufficient ? ..	Yes.	—	Yes.
28. Further remarks and suggestions..	Nil.	—	—

APPENDIX II.—*continued.*

Report on Prisons by Stations—*continued.*

	Lushoto.	Mafia.	Mahenge.
1. Number of Prisoners in Prison on 31/12/23	27	—	9
2. Number of Persons committed to Prison during 1924	90	52	89
3. Number of Prisoners in Prison on 31/12/24	30	—	13
4. Daily average number of Prisoners, 1924	21	15·61	14·13
5. Number admitted to Prison Sick-bay, 1924	20	—	5
6. Number admitted to Native Hospital, 1924	1	Nil.	None.
7. Daily average on Sick List ..	0·04	0·5	2·36 owing to daily excuse duty of 2 criminal lepers.
8. Number of Deaths of Prisoners, 1924	1	—	None.
9. (*a*) Cause of Death in each case (i) ..	Ankylostomiasis.	—	—
(ii) ..	—	—	—
(iii) ..	—	—	—
(iv) ..	—	—	—
(v) ..	—	—	—
(vi) ..	—	—	—
(vii) ..	—	—	—
(viii) ..	—	—	—
(ix) ..	—	—	—
(x) ..	—	—	—
(xi) ..	—	—	—
(xii) ..	—	—	—
(xiii) ..	—	—	—
(xiv) ..	—	—	—
9. (*b*) Period of detention in Prison prior to date of death (i)	In prison for some time before he was transferred to hospital.	—	—
(ii) ..	—	—	—
(iii) ..	—	—	—
(iv) ..	—	—	—
(v) ..	—	—	—
(vi) ..	—	—	—
(vii) ..	—	—	—
(viii) ..	—	—	—
(ix) ..	—	—	—
(x) ..	—	—	—
(xi) ..	—	—	—
(xii) ..	—	—	—
(xiii) ..	—	—	—
(xiv) ..	—	—	—
10. Prisoners released on medical grounds, 1924. Cause of release in each instance	Nil.	—	None.

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Lushoto.	Mafia.	Mahenge.
11. System of confinement—Association Cells (A.C.) or Single Cells (S.C.)	A.C.	—	A.C.
12. Cubic space available at night per Prisoner, taking average number	765 cub. ft.	—	500 cub. ft.
13. Floor space in square feet per Prisoner, taking average number of Prisoners	63 sq. ft.	—	113 sq. ft.
14. Labour on which Prisoners are employed, and hours of work	(1) Cleaning of drains and forests. (2) Draining of swamps. (3) Cutting wood. (4) Conveying water. (5) Cleaning roads, prison shambas.	—	Grass cutting and shamba cultivation. Owing to small number of prisoners, considerable wood & water carrying for the prison is necessary, as both these commodities, butespecially the firewood, are some distance away. Stocks of firewood also have to be laid in for the rainy season.
15. Sanitary condition of Prison ..	Satisfactory.	—	Quite satisfactory.
16. Are floors of Cells cemented ? ..	Yes.	—	No, lime and sand.
17. Prevailing Diseases	Nil.	—	Minor injuries, coughs, constipation, muscularpains and slight ailments.
18. Rules as to diet and hours of meals. What variety is provided—green food ? meat ?	Those laid down under Section 81 of Prison Ordinance, 1921.—(1) Green food, bananas, etc., daily. (2) Long-term prisoners, meat once a week. (3) Simple diet, maize. Food hours, 12 and 4 p.m.	—	As laid down in the diet scale of the Prison Ordinance of 1921. Fish is available, and considerable quantities of European vegetables are sent to the Prison from time to time. Meal hours, 6 a.m to noon, and 1 p.m. to 4 p.m.
19. Vaccinations : number vaccinated, 1924	118	—	—
Results—Successful	54	—	—
Modified	50	—	—
Failures	14	—	—
Number excused vaccination on account of previous small-pox or successful recent vaccination	18	—	—
Number not protected against small-pox	14	—	—

APPENDIX II.—*continued.*

Report on Prisons by Stations—*continued.*

	Lushoto.	Mafia.	Mahenge.
20. Infective Diseases, Number of cases of ..			
Chicken-pox ..	—	—	—
Dysentery ..	1	—	—
Influenza ..	—	—	5
Other ..	Malaria 4, Tuberculosis 2, and Gonorrhœa 1.	—	—
21. Insect and other Pests in Prison—			
Lice ..	Nil.	—	There is no evidence of pests.
Bugs ..	—	—	—
Fleas ..	—	—	—
Ornithodorus Moubata ..	—	—	—
Rats ..	—	—	—
Mice ..	—	—	—
22. Suggestions by Medical Officer in charge as to improvements required, and date when made	(1) The light is not enough; windows should be larger and at lower level. 14/6/24.	—	Windows were recommended in the west side of the cells.
(*a*) Accommodation, ventilation, etc. ..	—	—	—
(*b*) Diet ..	—	—	None.
(*c*) Sanitation ..	(2) Drain should be cemented, chimney should be raised. 12/7/24.	—	Small details from time to time.
(*d*) Other matters ..	Kitchen should be cemented. 1/11/24.	—	—
23. Action taken by Prison Authorities as a result of 22—(*a*) ..	Not taken.	—	Windows constructed.
(*b*) ..	—	—	—
(*c*) ..	Yes.	—	Attended to.
(*d*) ..	—	—	—
24. What sanitary arrangements are there in the Cells for use at night?	Native latrine pans and buckets.	—	Each cell is provided with covered sanitary pail.
25. Is drinking water provided for use at night? ..	Yes.	—	Yes.
26. Is there a weight register, and is it up to date? ..	Yes.	—	Yes; yes.
27. What number of blankets is provided for each Prisoner?	Two during cold, and one during hot, weather.	—	Two per prisoner, and a sleeping mat.
Is the clothing sufficient? ..	—	—	Sufficient.
28. Further remarks and suggestions..	Nil.	—	—

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Mbulu.	Mikindani.	Morogoro.
1. Number of Prisoners in Prison on 31/12/23	16	15	182
2. Number of Persons committed to Prison during 1924	74	396	336
3. Number of Prisoners in Prison on 31/12/24	10	19	114
4. Daily average number of Prisoners, 1924	12	26	130
5. Number admitted to Prison Sick-bay, 1924	Nil.	Nil.	—
6. Number admitted to Native Hospital, 1924	113 (Out-patients).	1	119
7. Daily average on Sick List ..	Nil.	2	5
8. Number of Deaths of Prisoners, 1924	Nil.	Nil.	34
9. (*a*) Cause of Death in each case (i) ..	—		Pneumonia, 1.
(ii) ..	—	—	Ankylostomiasis, 4.
(iii) ..	—	—	Tuberculosis of Lung, 12.
(iv) ..	—	—	Diarrhœa, 16.
(v) ..	—	—	Senelity, 1.
(vi) ..	—	—	—
(vii) ..	—	—	—
(viii) ..	—	—	—
(ix) ..	—	—	—
(x) ..	—	—	—
(xi) ..	—	—	—
(xii) ..	—	—	—
(xiii) ..	—	—	—
(xiv) ..	—	—	—

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Mbulu.	Mikindani.	Morogoro.
9. (*b*) Period of detention in Prison prior to date of death (i) ..	Nil.	N.A.	—
(ii) ..	—	—	—
(iii) ..	—	—	—
(iv) ..	—	—	—
(v) ..	—	—	—
(vi) ..	—	—	—
(vii) ..	—	—	—
(viii) ..	—	—	—
(ix) ..	—	—	—
(x) ..	—	—	—
(xi) ..	—	—	—
(xii) ..	—	—	—
(xiii) ..	—	—	—
(xiv) ..	—	—	—
10. Prisoners released on medical grounds, 1924. Cause of release in each instance	Nil.	Nil.	—
11. System of confinement—Association Cells (A.C.) or Single Cells (S.C.)	A.C.	A.C. as well as S.C.	A.C.
12. Cubic space available at night per Prisoner, taking average number	350 cub. ft.	206 cub. ft.	—
13. Floor space in square feet per Prisoner, taking average number of Prisoners	24 sq. ft.	29 sq. ft. approximately.	—
14. Labour on which Prisoners are employed, and hours of work ..	Prison shamba and station work, etc., from 6.30 a.m. to 12 noon, and from 1 p.m. to 4 p.m.	Pumping water, fuel cutting, sometimes road-making & repairing, 6 a.m. to noon, and 1 p.m. to 4 p.m. on week-days, and Saturdays 6 a.m. to noon.	—
15. Sanitary condition of Prison ..	Fair.	Good.	—
16. Are floors of Cells cemented? ..	Nil.	No, plastered with lime.	—
17. Prevailing Diseases	Nil.	Ulcers, Injuries, Bronchitis, & other minor ailments.	—
18. Rules as to diet and hours of meals. What variety is provided—green food? meat?	12 a.m. and 4 p.m., potatoes and maize flour. Long-term also get meat.	½ lb. of mtama, ½ lb. beans, and 1 oz. salt twice a day, 12 noon and 5 p.m., according to Prison Ordinance Dietary scale.	—

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Mbulu.	Mikindani.	Morogoro.
19. Vaccinations: number vaccinated, 1924	Nil.	96	—
Results—Successful	—	47	—
Modified	—	21	—
Failures	—	24 and 4 not seen again.	—
Number excused vaccination on account of previous small-pox or successful recent vaccination	—	Some were released before the supply of lymph was received, and some were protected with distinct marks, and consequently not vaccinated.	—
Number not protected against small-pox	—	—	—
20. Infective Diseases, Number of cases of—			
Chicken-pox	—	—	—
Dysentery	—	—	—
Influenza	—	10, and no deaths.	—
Other	—	—	—
21. Insect and other Pests in Prison—			
Lice	Nil.	—	—
Bugs	—	Bugs.—Blankets & clothing kept in sun daily.	—
Fleas	—		
Ornithodorus Moubata ..	—	Rooms disinfected.	—
Rats	—	—	—
Mice	—	—	—
22. Suggestions by Medical Officer in charge as to improvements required, and date when made	Nil.	Nil.	—
(*a*) Accommodation, ventilation, etc.	—	—	—
(*b*) Diet	—	—	—
(*c*) Sanitation	—	—	—
(*d*) Other matters	—	—	—
23. Action taken by Prison Authorities as a result of 22—(*a*) ..	—	Nil.	—
(*b*)	—	—	—
(*c*)	—	—	—
(*d*) ..	—	—	—
24. What sanitary arrangements are there in the Cells for use at night?	Night guard askari when required take the prisoners to latrine.	Buckets kept.	Each cell is provided with a bucket.
25. Is drinking water provided for use at night?	Night askari gives if required.	Water supplied.	—
26. Is there a weight register, and is it up to date?	Nil.	No.	—
27. What number of blankets is provided for each Prisoner? ..	Two.	One blanket supplied.	—
Is the clothing sufficient? ..	Yes.	Yes.	—
28. Further remarks and suggestions..	Nil.		—

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Moshi.	Musoma.	Mwanza.
1. Number of Prisoners in Prison on 31/12/23	43	28	139
2. Number of Persons committed to Prison during 1924	490	305	650
3. Number of Prisoners in Prison on 31/12/24	67	75	234
4. Daily average number of Prisoners, 1924	45·4	42·45	156·4
5. Number admitted to Prison Sick-bay, 1924	Nil.	5	54
6. Number admitted to Native Hospital, 1924	3	Nil.	9
7. Daily average on Sick List ..	3·04	3·25	19
8. Number of Deaths of Prisoners, 1924	Nil.	2	14
9. (*a*) Cause of Death in each case (i) ..	—	Ankylostomiasis.	Tubercular Peritonitis.
(ii) ..	—	Cerebro-Spinal Fever.	Acute Cystitis and Peritonitis.
(iii) ..	—	—	Dementia.
(iv) ..	—	—	Pneumonia.
(v) ..	—	—	Pneumonia.
(vi) ..	—	—	Pneumonia.
(vii) ..	—	—	Chronic Bronchitis.
(viii) ..	—	—	Heart Failure and Chronic Bright's Disease.
(ix) ..	—	—	Debility & Cystitis.
(x) ..	—	—	Heart Disease.
(xi) ..	—	—	Heart Disease.
(xii) ..	—	—	Cirrhosis of Liver.
(xiii) ..	—	—	Chronic Bronchitis & General Debility.
(xiv) ..	—	—	Colitis and General Debility.
9. (*b*) Period of detention in Prison prior to date of death (i) ..	N.A.	6 days.	2 years.
(ii) ..	—	27 days.	3 ,,
(iii) ..	—	—	2 ,,
(iv) ..	—	—	17 days.
(v) ..	—	—	49 ,,
(vi) ..	—	—	18 ,,
(vii) ..	—	—	3 yrs., 2 mths.
(viii) ..	—	—	10 months.
(ix) ..	—	—	2 yrs., 3 mths.
(x) ..	—	—	15 months.
(xi) ..	—	—	7 ,,
(xii) ..	—	—	7 ,,
(xiii) ..	—	—	3 yrs., 2 mths.
(xiv) ..	—	—	2 ,, 2 ,,
10. Prisoners released on medical grounds, 1924. Cause of release in each instance	Nil.	Nil.	Nil.
11. System of confinement—Association Cells (A.C.) or Single Cells (S.C.)	7 A.C. and 4 S.C.	A.C.	A.C.
12. Cubic space available at night per Prisoner, taking average number	484·6 cub. ft.	300 cub. ft.	400 cub. ft.
13. Floor space in square feet per Prisoner, taking average number of Prisoners	51·4 sq. ft.	30 sq. ft.	40 sq. ft.

APPENDIX II—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Moshi.	Musoma.	Mwanza.
14. Labour on which Prisoners are employed, and hours of work ..	Maize crushing, sanitation, wood fuel cutting, water carrying, lime burning, cultivation, stone breaking, grass cutting, road cleaning, 6.30 a.m. to 12 noon, 1 p.m. to 4 or 4.30 p.m.	General, 6.30 to 12 noon, 2 to 4 p.m.	Road making, stone breaking, manufacturing departmental clothing, mat making, etc.
15. Sanitary condition of Prison ..	Satisfactory.	Good.	Good.
16. Are floors of Cells cemented ? ..	Yes.	Cemented.	Yes.
17. Prevailing Diseases	Malaria, Local Injuries, Intestinal & Helminthic Diseases.	Nil.	Ordinary.
18. Rules as to diet and hours of meals. What variety is provided—green food ? meat ?	Meal hours 6 a.m., 12 noon, 5.30 p.m. Maize, beans, or mealie-meal, beans, plantains, mohogo, sweet potatoes, sweet bananas, pawpaw from prison shamba, ghee and salt. Meat is given to long-sentenced prisoners.	Green food is used when available, meat also.	The prisoners are amply fed, and the food is well cooked. They get the food they are accustomed to as far as possible. No green stuffs are given, as they are not easy to obtain in sufficient quantities. Hours of meals, 6 a.m., 12 a.m., and 5.30 p.m.
19. Vaccinations : number vaccinated, 1924	—	None have been vaccinated during the year.	All unvaccinated prisoners were vaccinated in December.
Results—Successful	—	—	—
Modified	—	—	—
Failures	—	—	—
Number excused vaccination on account of previous small-pox or successful recent vaccination	—	—	—
Number not protected against small-pox	Nil.	—	—
20. Infective Diseases, Number of cases of—	—	There was a case of ankylostomiasis & cerebro-spinal fever. The former infection was with the prisoner before his admission in the jail. Both ended in death.	There was an outbreak of pneumonia in the prison in September, from which 3 patients died. These cases were taken into hospital as far as possible.
Chicken-pox			
Dysentery			
Influenza			
Other			
21. Insect and other Pests in Prison—			
Lice	No.	Nil.	No.
Bugs	—	—	—
Fleas	—	—	—
Ornithodorus Moubata ..	—	—	—
Rats	—	—	—
Mice	—	—	—

APPENDIX II—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Moshi.	Musoma.	Mwanza.
22. Suggestions by Medical Officer in charge as to improvements required, and date when made	—	—	—
(*a*) Accommodation, ventilation, etc.	—	—	—
(*b*) Diet	Meals to be ground, and not given whole.	To sieve daily flour (cooking), 27/9/24. To have a barrel with cover and a tap to store water for drinking purposes, 30/8/24.	That the grinding of grain and mohogo be not done beside the latrines.
(*c*) Sanitation	Latrines to be included in the compound. More frequent bathing of prisoners to be done.	Informed prophylactic means against ankylostomiasis infection, 5/11/24. Latrines and urine drums with covers, 30/11/24.	—
(*d*) Other matters	—	—	—
23. Action taken by Prison Authorities as a result of 22—(*a*)		The first and third recommendations have been fulfilled, and others, on account of lack of funds, are under consideration.	Shifted to the other side of the prison.
(*b*)	Two mealie mortars procured, and the mealie grinder repaired.	—	—
(*c*)	Latrines, kitchen, and bathing place included in the compound.	—	—
(*d*)	Bathing twice weekly.	—	—
24. What sanitary arrangements are there in the Cells for use at night?	The latrines are now within enclosures.	Two empty kerosine tins are kept in each cell for the purpose.	Two tins in each cell, one for urine, other for fæces.
25. Is drinking water provided for use at night?	Yes.	One bucket at every cell.	Yes.
26. Is there a weight register, and is it up to date?	Yes.	No register.	Yes.
27. What number of blankets is provided for each Prisoner?	One, except when prisoner marked excused or light duty, when two provided.	A blanket and a sleeping mat is supplied to each prisoner; in case of sickness two blankets and one bed.	One, and mat.
Is the clothing sufficient?	—	—	Yes.
28. Further remarks and suggestions	—	A cell should be allocated as prison hospital, and a number of beds, with a medicine cupboard, table, and chair. A table on which to keep the cooked food before distribution. Plenty of disinfectant fluid.	—

APPENDIX II—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Namanyere.	Pangani.	Shinyanga.
1. Number of Prisoners in Prison on 31/12/23	14	40	10
2. Number of Persons committed to Prison during 1924	72	579	121
3. Number of Prisoners in Prison on 31/12/24	15	61	6
4. Daily average number of Prisoners, 1924	18·62	37·2	9·45
5. Number admitted to Prison Sick-bay, 1924	2	9	1
6. Number admitted to Native Hospital, 1924	—	Nil.	3
7. Daily average on Sick List ..	4·79	4·54	14
8. Number of Deaths of Prisoners, 1924	1	Nil.	Nil.
9. (*a*) Cause of Death in each case (i) ..	Pneumonia.	—	—
(ii) ..	—	—	—
(iii) ..	—	—	—
(iv) ..	—	—	—
(v) ..	—	—	—
(vi) ..	—	—	—
(vii) ..	—	—	—
(viii) ..	—	—	—
(ix) ..	—	—	—
(x) ..	—	—	—
(xi) ..	—	—	—
(xii) ..	—	—	—
(xiii) ..	—	—	—
(xiv) ..	—	—	—
9. (*b*) Period of detention in Prison prior to date of death (i) ..	11 days.	Nil.	Nil.
(ii) ..	—	—	—
(iii) ..	—	—	—
(iv) ..	—	—	—
(v) ..	—	—	—
(vi) ..	—	—	—
(vii) ..	—	—	—
(viii) ..	—	—	—
(ix) ..	—	—	—
(x) ..	—	—	—
(xi) ..	—	—	—
(xii) ..	—	—	—
(xiii) ..	—	—	—
(xiv) ..	—	—	—
10. Prisoners released on medical grounds, 1924. Cause of release in each instance	Nil.	Nil.	Nil.
11. System of confinement—Association Cells (A.C.) or Single Cells (S.C.)	A.C.	A.C.	A.C.
12. Cubic space available at night per Prisoner, taking average number	483·33 cub. ft.	400 cub. ft.	3,101 cub. ft.

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Namanyere.	Pangani.	Shinyanga.
13. Floor space in square feet per Prisoner, taking average number of Prisoners	48·33 sq. ft.	37 sq. ft.	228 sq. ft.
14. Labour on which Prisoners are employed, and hours of work ..	Brick making, gardening, building, ordinary prison work, water carrying, wood cutting, etc., 9½ hours daily, except Saturday, when only 5½ hours. Sunday nil.	Rigorous & simple: (R.) Lime burning, wood cutting and station improvements. (S.) Mat weaving, rope twisting, jail cleaning, and other light work.	Cleaning township area and bringing water and firewood. Working from 6 a.m. to 12 noon, and 1 p.m. to 4 p.m.
15. Sanitary condition of Prison ..	Good.	Good.	Good.
16. Are floors of Cells cemented ? ..	Lime cement.	Yes.	No.
17. Prevailing Diseases	I.C.T., Bronchitis, Venereal, Eye Diseases.	Ulcers and wounds.	Bronchitis & local injuries.
18. Rules as to diet and hours of meals. What variety is provided—green food ? meat ?	In accordance with dietary scale authorised under Govt. Notice No. 118 of 1921.	Each morning, midday, and evening. As much variety as possible, consistent with local supply and Dietary Scales.	6 a.m., 12 noon, and 4 p.m. Ugali of mtama, flour, and kunde given. Half lemon is given to each convict on Tues., Thurs., Sat., and Sun. during the week.
19. Vaccinations : number vaccinated, 1924	68	170	No.
Results—Successful	4	Nil.	—
Modified		165	—
Failures	64	15	—
Number excused vaccination on account of previous small-pox or successful recent vaccination	4	..	—
Number not protected against small-pox	Nil.	Nil.	—
20. Infective Diseases, Number of cases of—			
Chicken-pox	—		—
Dysentery	—	—	—
Influenza	—	—	
Other			Yaws, 1.
21. Insect and other Pests in Prison—Lice	Prison cleaned daily with disinfectants. Clothing and blankets washed weekly in solution of disinfectants.	—	No.
Bugs		—	—
Fleas	—	—	—
Ornithodorus Moubata ..	—	—	—
Rats	Rat holes have been seen.	Rats only by traps.	—
Mice	—	—	—

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Namanyee.	Pangani.	Shinyanga.
22. Suggestions by Medical Officer in charge as to improvements required, and date when made	Nil.	For the construction of a removable latrine for the convicts inside the jail. Done.	—
(*a*) Accommodation, ventilation, etc.	—	—	Nil.
(*b*) Diet	Nil.	—	On 6/11/24 about 200 lbs. of beans, stored for the use of prisoners, were found to be unsound, and so it was suggested that these should be destroyed.
(*c*) Sanitation	—	The construction of a night latrine.	—
(*d*) Other matters	—	—	On 19/10/24 it was requested that disinfectant be sprinkled on the floors of the cells twice a week.
23. Action taken by Prison Authorities as a result of 22—(*a*) ..	Nil.	—	—
(*b*)	Nil.	--	The beans were destroyed the 2nd day.
(*c*)	Nil.	Carried out.	This was done.
(*d*) ..	—	—	—
24. What sanitary arrangements are there in the Cells for use at night ?	Sanitary buckets are in use in all wards during night.	Night soil tubs for the urine, and a removable latrine.	Latrine pans and urine drums are placed in the wards at night.
25. Is drinking water provided for use at night ?	Yes.	Yes.	Buckets full of water are kept in the wards at night.
26. Is there a weight register, and is it up to date ?	Yes.	Yes.	There is no weight register.
27. What number of blankets is provided for each Prisoner ? ..	Two blankets during cold weather, otherwise one only.	One blanket and a sleeping mat.	One blanket is provided to each prisoner.
Is the clothing sufficient ? ..	Yes.	—	—
28. Further remarks and suggestions..	Nil.	Nil.	—

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Singida.	Songea.	Tabora.
1. Number of Prisoners in Prison on 31/12/23	25	36	107
2. Number of Persons committed to Prison during 1924	124	144	542
3. Number of Prisoners in Prison on 31/12/24	—	24	164
4. Daily average number of Prisoners, 1924	10·4	29	170
5. Number admitted to Prison Sick-bay, 1924	—	Nil.	158
6. Number admitted to Native Hospital, 1924	44	19	171
7. Daily average on Sick List ..	—	3	8
8. Number of Deaths of Prisoners, 1924	1	Nil.	5
9. (*a*) Cause of Death in each case (i) ..	Pneumonia.	—	Heart Failure.
(ii) ..	—	—	Asthenia.
(iii) ..	—	—	Heart Failure.
(iv) ..	—	—	Epilepsy.
(v) ..	—	—	Pyæmia.
(vi) ..	—	—	—
(vii) ..	—	—	—
(viii) ..	—	—	—
(ix) ..	—	—	—
(x) ..	—	—	—
(xi) ..	—	—	—
(xii) ..	—	—	—
(xiii) ..	—	—	—
(xiv) ..	—	—	—
9. (*b*) Period of detention in Prison prior to date of death (i) ..	180 days.	—	3 mths., 23 days.
(ii) ..	—	—	7 ,, 22 ,,
(iii) ..	—	—	5 yrs. 9 ,,
(iv) ..	—	—	2 months.
(v) ..	—	—	6 mths., 8 ,,
(vi) ..	—	—	—
(vii) ..	—	—	—
(viii) ..	—	—	—
(ix) ..	—	—	—
(x) ..	—	—	—
(xi) ..	—	—	—
(xii) ..	—	—	—
(xiii) ..	—	—	—
(xiv) ..	—	—	—
10. Prisoners released on medical grounds, 1924. Cause of release in each instance	—	—	—
11. System of confinement—Association Cells (A.C.) or Single Cells (S.C.)	A.C.	A.C.	A.C.
12. Cubic space available at night per Prisoner, taking average number	—	400 cub. ft.	300 cub. ft.

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Singida.	Songea.	Tabora.
13. Floor space in square feet per Prisoner, taking average number of Prisoners	—	35 sq. ft.	144 sq. ft.
14. Labour on which Prisoners are employed, and hours of work	—	Road making building repairs, station improvements and general labour, 6.30 a.m. to 12 noon, 1 p.m. to 4 p.m.	Prison industries, carpentry, tailoring, rope making. Outside work—Brick making, and building, wood chopping, water carrying.
15. Sanitary condition of Prison ..	—	Satisfactory.	Good.
16. Are floors of Cells cemented ? ..	—	No, the floors are of mud.	Those of the Association cells are cemented.
17. Prevailing Diseases	—	Malaria, Rheumatism, and Bronchitis.	—
18. Rules as to diet and hours of meals. What variety is provided—green food ? meat ?	—	Food twice daily. Prisoners are fed according to the scale laid down by Govt. Notice No. 118 of 1921.	6 a.m., 12 noon, 6 p.m., mealies (mealie-meal), germinated beans, muhogo, meat 4 oz. each Sun., Thurs., Tues. Green food twice a week (4 ozs.).
19. Vaccinations : number vaccinated, 1924	—	40	On repeated examination.
Results—Successful		22	The average numbe of unvaccinated prisoners is about 20%.
Modified	—	7	
Failures		11	—
Number excused vaccination on account of previous small-pox or successful recent vaccination	—	4	On discharge those unvaccinated are vaccinated.
Number not protected against small-pox	—	Nil.	—
20. Infective Diseases, Number of cases of—			
Chicken-pox	—	—	[illegible]
Dysentery	—	—	10
Influenza	—	—	7
Other	—	—	Mumps 14, Yaws 4.
21. Insect and other Pests in Prison—			
Lice	—	No.	No.
Bugs	—	—	—
Fleas	—	—	—
Ornithodorus Moubata ..	—	—	—
Rats	—	—	The food is now kept in rat-proof tins.
Mice	—	—	—

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Singida.	Songea.	Tabora.
22. Suggestions by Medical Officer in charge as to improvements required, and date when made	—	Nil.	—
(*a*) Accommodation, ventilation, etc.	—	—	Lunatics and lepers should be segregated.
(*b*) Diet	—	—	Germinated beans should be provided twice a week.
(*c*) Sanitation	—	—	New soakage pit to be constructed.
(*d*) Other matters	—	—	—
23. Action taken by Prison Authorities as a result of 22—(*a*) ..	—	Nil.	Has been done. Separate compounds have been provided for lepers and lunatics, with separate latrines and bathing accommodation. Drinking water tank has also been provided, so that there is no need for the inmates to leave the compound.
(*b*)	—	—	Has been done.
(*c*)	—	—	Has been done.
(*d*) ..	—	—	A new soakage pit has been constructed—concrete cover with tight-fitting lid has been provided, all the openings are mosquito proof.
24. What sanitary arrangements are there in the Cells for use at night?	—	Sanitation soils are put out during the night, and cleaned in the morning.	One latrine pan in each cell.
25. Is drinking water provided for use at night?	—	Yes.	Yes.
26. Is there a weight register, and is it up to date?	—	Yes.	Yes.
27. What number of blankets is provided for each Prisoner? ..	—	Two blankets during wet and cold weather, and one during summer.	One; three are provided for sick prisoners in hospital.
Is the clothing sufficient? ..	—	Yes.	Yes.
28. Further remarks and suggestions..	—	The floor needs cementing, and new corrugated iron is needed for the roof.	—

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Tanga.	Tukuyu.	Tunduru.	Utete.
1. Number of Prisoners in Prison on 31/12/23	124	107 and 2 lunatics.	3	15
2. Number of Persons committed to Prison during 1924	349	200	42	77
3. Number of Prisoners in Prison on 31/12/24	132	125 and 2 lunatics.		19
4. Daily average number of Prisoners, 1924	119	109	8·7	15
5. Number admitted to Prison Sick-bay, 1924		Nil.		13
6. Number admitted to Native Hospital, 1924	52	94		Nil.
7. Daily average on Sick List ..	4·77	9		1·95
8. Number of Deaths of Prisoners, 1924	2	2	—	1
9. (*a*) Cause of Death in each case (i) ..	Phthisis.	Heart Failure and Influenza.	—	Double Pneumonia, Heart Failure.
(ii) ..	Ankylostomiasis.	Heart Failure and Influenza.	—	—
(iii) ..	—	—	—	—
(iv) ..	—	—	—	—
(v) ..	—	—	—	—
(vi) ..	—	—	—	—
(vii) ..	—	—	—	—
(viii) ..	—	—	—	—
(ix) ..	—	—	—	—
(x) ..	—	—	—	—
(xi) ..	—	—	—	—
(xii) ..	—	—	—	—
(xiii) ..	—	—	—	—
(xiv) ..	—	—	—	—
9. (*b*) Period of detention in Prison prior to date of death (i) ..	—	23 months.	—	6 months.
(ii) ..	—	3 weeks.	—	—
(iii) ..	—	—	—	—
(iv)	—	—	—	—
(v)	—	—	—	—
(vi)	—	—	—	—
(vii)	—	—	—	—
(viii)	—	—	—	—
(ix)	—	—	—	—
(x)	—	—	—	—
(xi)	—	—	—	—
(xii)	—	—	—	—
(xiii)	—	—	—	—
(xiv)	—	—	—	—
10. Prisoners released on medical grounds, 1924. Cause of release in each instance	—	—	—	1
11. System of confinement—Association Cells (A.C.) or Single Cells (S.C.)	A.C.	5 A. wards, and 4 cells.	A.C.	2 Association cells.

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Tanga.	Tukuyu.	Tunduru.	Utete.
12. Cubic space available at night per Prisoner, taking average number	300 cub.ft.	1,350 cub. ft.	—	868 cub. ft.
13. Floor space in square feet per Prisoner, taking average number of Prisoners	27 sq. ft.	72 sq. ft.	—	67 sq. ft.
14. Labour on which Prisoners are employed, and hours of work ..	—	Working hours, 6.30 to noon, 1.30 to 4.30 p.m., public works, construction of police lines, repairs to prison, prison garden, sanitation, cleaning, etc.	—	Minor labour, sanitary work, 7 a.m. to 12 noon, 1 p.m. to 4.30 p.m.
15. Sanitary condition of Prison ..	—	This is very satisfactory.	—	Satisfactory.
16. Are floors of Cells cemented ? ..	—	No.	—	No.
17. Prevailing Diseases	—	Influenza.	—	Malaria, Bronchitis, Diarrhœa, and constipation, etc.
18. Rules as to diet and hours of meals. What variety is provided—green food ? meat ?	—	Long-term prisoners are allowed meat and ghee in addition to ordinary diet. Hours of meals, 6.15, noon, 5 p.m. Variety of food: Rice, maize, potatoes, beans, salt.	—	As per prison Ordinance No. 14 of 1921. Time of food, morning 6 a.m., 12 noon, and dinner 4 to 5 p.m.
19. Vaccinations : number vaccinated, 1924	—	67	—	78
Results—Successful	—	45	—	53
Modified	—	4	—	8
Failures	—	18		17
Number excused vaccination on account of previous small-pox or successful recent vaccination	—	—	—	40
Number not protected against small-pox	—	—	—	78
20. Infective Diseases, Number of cases of	—	—	—	Yes, 4 cases of Influenza and 1 case of Double Pneumonia. One death due to pneumonia during the year.
Chicken-pox	—	—	—	—
Dysentery	—	4		—
Influenza	—	28 (2 deaths).	—	—
Other	—	1 Mumps.	—	—

APPENDIX II.—*continued.*

REPORT ON PRISONS BY STATIONS—*continued.*

	Tanga.	Tukuyu.	Tunduru.	Utete.
21. Insect and other Pests in Prison—				
Lice	—	Lice, fleas and rats in moderation. All clothing is washed and disinfected once weekly.	—	—
Bugs	—		—	—
Fleas	—		—	—
Ornithodorus Moubata ..	—		—	—
Rats	—	—	—	Rats only. Rat-traps were used.
Mice	—	—	—	—
22. Suggestions by Medical Officer in charge as to improvements required, and date when made	—	—	—	—
(*a*) Accommodation, ventilation, etc.	—	Minor matters of sanitation.	—	Nil.
(*b*) Diet	—	Diet is adequate.	—	Nil.
(*c*) Sanitation	—	—	—	Nil.
(*d*) Other matters	—	—	—	Nil.
23. Action taken by Prison Authorities as a result of 22—(*a*) ..	—	—	—	Nil.
(*b*)	—	Adequate.	—	Nil.
(*c*)	—	—	—	—
(*d*) ..	—		—	—
24. What sanitary arrangements are there in the Cells for use at night ?	—	Sanitary pails in wards.	—	Latrine buckets are kept at 6 p.m.
25. Is drinking water provided for use at night ?	—	Yes.	—	Yes.
26. Is there a weight register, and is it up to date ?	—	Yes.	—	Yes.
27. What number of blankets is provided for each Prisoner ? ..	—	Two.	—	One blanket and one mat.
Is the clothing sufficient ? ..	—	Yes.	—	Yes.
28. Further remarks and suggestions..	—	—	—	Nil.

APPENDIX III.

ANNUAL REPORT OF THE SUPERINTENDENT, LUTINDI LUNATIC ASYLUM.

STAFF.

European Staff (2).—Matron and Superintendent.

The Superintendent (Mr. J. Spittles) and the Matron (Mrs. C. M. Spittles) were relieved by Mr. R. J. Whelan and Mrs. Whelan on the 1st April, and proceeded on Home Leave.

They resumed duty at the Asylum on the 1st December.

Native Employees (15).

Male Attendants	6
Female Attendants	3
Female Cook	1
Clerks	2
Tradesman	1
Farm Hand	1
Messenger and Post Boy	1

Sundry porters have been engaged to transport Asylum stores to or from Maurui Station.

Health of Native staff has been satisfactory throughout the year.

Discipline excellent.

STATISTICS.

	Males.	Females.	Total.
In residence on 1st January, 1924	50	31	81
Admitted since ,, ,, ,, ...	13	7	20
Discharged ,, ,, ,, ,, ..	9	1	10
Deaths ,, ,, ,, ,, ...	2	2	4
Remaining on 31st December, 1924 ..	52	35	87
Total under treatment during 1924 ..	63	38	101
Average daily state during 1924	49	33	82

	Males.	Females.
Average length of stay of those discharged	1 yr. 5 mths.	4 yrs. 8 mths.
,, ,, ,, ,, ,, ,, who died	4 ,, 1 ,,	5 ,, 8 ,,
,, ,, ,, ,, ,, ,, remaining	5 ,, 0 ,,	7 ,, 7 ,,

ADMISSIONS.

The 20 patients admitted were classified as follows :—

	Females.	Males.	Total.
Mania	1	6	7
Delusional Insanity	4	2	6
Climacteric ,, ...	1	0	1
Melancholia	0	2	2
Senile Dementia	1	1	2
Imbecility	0	1	1
,, moral	0	1	1

Two males and two females were admitted as Criminal Lunatics.

Three male admissions had previously been inmates of a Lunatic Asylum.

DISCHARGES.

Ten patients were discharged, 13 less than in 1923. One male and one female were improved, remainder were regarded as recoveries.

As noted formerly the males have provided the bulk of the recoveries, they appear to reach the Asylum when their mental illness is in its early stage and it readily responds to the Asylum nursing.

The majority of female admissions suffer from the more severe forms of mental disorder. Unless they become actively troublesome or dependent in their village, they do not reach the Asylum until their condition is well established. Of the 35 females at present in residence there are perhaps two who can be said to be probable recoveries.

DEATHS.

Four died during the year, one less than in 1923. The death rate, based on the average number resident, is considerably lower than that of many Asylums at Home in 1923.

The principal cause, so far as could be ascertained, in each case was as follows :—

Male	,,	117	Dysentery (addicted to earth-eating).
,,	,,	36	,,
Female	,,	23	Epilepsy.
,,	,,	136	Senile decay.

HEALTH.

The general health of the patients has been very satisfactory.

There has been no epidemic, infectious disease or serious casualty throughout the year.

Patients and employees were vaccinated during April.

There were three cases of severe abrasions during epileptic seizures.

Several patients sustained minor injuries at the hands of fellow-patients.

One male underwent operation for hydrocele at the Native Hospital, Tanga.

One male suffering from glandular inflammation required special treatment. His transfer to Tanga Hospital is being arranged.

One male suffering from an abscess in the ear was operated upon by the Sub-Assistant Surgeon, Lushoto.

Five patients were placed in seclusion for short periods during the year.

Artificial restraint was resorted to in four cases of acute excitement.

There were no escapes during the year.

VISITORS.

The Administrative Officer in charge, Usambara District, inspected the Asylum on 3rd October.

The Sub-Assistant Surgeon, Lushoto, visited and operated on one male patient on 21st August.

EXPENDITURE.

The total spent at the Asylum during the year was Shs. 9540/37. The cost of maintenance during the same period was approximately cents. 32, per head, per day.

INCOME.

Shs. 36/– realized from the sale of coffee grown in the grounds was paid in to the Sub-Accountant, Lushoto, in January.

Shs. 10/– realized from the sale of ox-hides and medicines, was paid in to the Treasury officer, Tanga, in December.

GENERAL MATTERS.

A daily service was held in the adjacent Mission Church. The Mission band gave frequent performances in the grounds.

Between 20 and 30 male patients were daily employed in occupations useful to the Asylum, and beneficial to themselves.

Foodstuffs and tobacco were grown, to the value of Shs. 806/37, and taken on Ration Ledger charge.

Several female patients were employed cleaning food.

Two large cupboards were made for Lushoto Hospital.

No case of ill-treatment was observed, and no complaint was received during the year.

The Matron and Mrs. Whelan conducted the dispensary for out-patients from the surrounding villages. The number treated was 829, the majority being children.

A list of the various ailments treated is attached.

Ample supplies of medical stores have been received from Headquarters.

OUT-PATIENTS TREATED AT THE ASYLUM DISPENSARY.

Ailment.	No. of Patients.
Aural discharge	7
Ankylostomiasis	130
Boils	21
Bronchitis	70
Burns	4
Constipation	84
Conjunctivitis	3
Cardiac disorder	4
Diarrhœa	7
Gonorrhœa	2
Injuries from Accidents, etc.	14
Influenza	11
Malaria	38
P.U.O.	22
Rheumatism	9
Ringworm	3
Scabies	10
Tonsilitis	6
Teeth extractions	9
Ulcers	98
Worms (Ascaris)	255
Dislocation	2
Dyspepsia	20
Total number treated	829

VI. *SCIENTIFIC.*

A BRIEF NOTE BY DR. J. HALES PARRY, ACTING SENIOR MEDICAL OFFICER, TANGA, ON FOUR INTERESTING CASES.

"I believe there were two cases of Diphtheria which died in the town of Tanga; both cases came from the same Goan family. The first child I did not see, but the second both Dr. Nixon and myself were called in consultation with Dr. Gonsalves, who was treating the case. The throat was extremely difficult to see, but the symptoms all pointed to the case being Diphtheria, and Dr. Gonsalves was requested to take a swab and give anti-diphtheria serum. This child died the next day and about ten days after the first.

"Two cases of Relapsing fever were treated during the year, one a European member of the Graves Commission who had become infected on the Korogwe Handeni road, and was brought to Hospital at the end of his first attack. His first relapse occurred nine days afterwards, and was very severe. Neckharsivan ·45 grm. cut short the attack to some extent, but did not prevent a subsequent one; during the interval between the attacks he had a most persistent headache. The second relapse was again a severe one, and commenced by a violent fit and unconsciousness. Neokarsivan ·6 grm. cut short this attack, and he had no further relapses, but convalescence was complicated by a left sided facial paralysis, and attacks of frontal headache, worse at night-time. He eventually completely recovered.

"The other case was an Indian, who became infected at Buiko, on the Tanga line. This case was also very severe, but I did not have an opportunity of seeing him till his second relapse; previously he had been treated for Malaria. It required two injections of Neokharsivan before he completely recovered. Convalescence in this case was very slow and accompanied by headache and photophobia. No eye complications could be discovered.

"I saw a case of Hookworm in a European baby 12 months' old, but I have no clear idea how it could possibly have become infected."

EXTRACT OF A REPORT BY DR. G. R. C. WILSON, MEDICAL OFFICER, TUKUYU, ON THE TREATMENT OF YAWS WITH BISMUTH SODÆ POTASS. TARTR.

"*Yaws.*—A special dispensary was opened at Mwaya in June, for the treatment of this disease.

Number Treated 3554

"The treatment used has been Bismuth Sodium Potassium Tartarate, which is remarkably efficient in clearing up the lesions.

Out-Patients' average number of injections	2·1
In-Patients' ,, ,, ,, ,,	2·9

"This average should improve with the less painful injection of the more concentrated solution of the Bismuth salt.

"Results have been very satisfactory. Relapses are few; and none, in those cases, which have undergone the full course of injections.

"There have been no deaths attributable to the drug. Abscesses have been rare.

"The administration of the drug in a more concentrated form is very much less painful and as efficient."

The method of using concentrated solutions in quantities of 5 minims or ·5 c.c. per injection was recommended for trial in a circular issued from the Principal Medical Officer's office; several other Officers have also reported that less pain and reaction occur following the use of small quantities of fluid.

J. O. SHIRCORE,
Principal Medical Officer,
Tanganyika Territory.

III. *SANITATION.*

This report of the work of the Sanitation Division during 1924 is submitted in the same form as the Model Sanitary Report issued by the Colonial Office in 1923.

I. ADMINISTRATIVE.

The trained staff was employed as follows on 31st December, 1924 :—

P.M.O.'s Office, Dar-es-Salaam	1	Senior Sanitation Officer.
Dar-es-Salaam	1	Senior Medical Officer of Health from 27.10.24.
	1	Lady Health Visitor.
	4	European Sanitary Superintendents.
	1	Sub-Assistant Surgeon.
	1	Asiatic Sanitary Inspector.
	10	Partially-trained Native Sanitary Inspectors.
	6	Vaccinators.
Tanga	1	Medical Officer of Health.
	2	European Sanitary Superintendents.
	3	Partially-trained Native Sanitary Inspectors.
	2	Vaccinators.
Tabora	1	European Sanitary Superintendent.
	3	Partially-trained Native Sanitary Inspectors.
	1	Vaccinator.
Kigoma and Ujiji	1	Asiatic Sanitary Inspector.
	1	Partially-trained Native Sanitary Inspector.
Mwanza	1	Asiatic Sanitary Inspector.

In addition a partially trained Native Sanitary Inspector is stationed in each of nine smaller townships throughout the Territory.

Outside Dar-es-Salaam, Tanga and Tabora seventeen Vaccinators are employed to tour the districts. Vaccinations in the Townships being done by the Hospital staffs.

FINANCIAL.

The figures showing the expenditure on Sanitation and Public Health work are shown on page 11, in the general financial statement of the Medical Expenditure.

The expenditure on Quarantine has been considerably increased. Passengers for Dar-es-Salaam are quarantined when necessary at Zanzibar, and in former years payments have been made for the actual number of passengers booked to Dar-es-Salaam who have been detained at Quarantine Island, Zanzibar. It was found, however, that owing to more regular shipping facilities, many passengers from Bombay to Tanganyika Territory booked to Zanzibar only, and then transhipped by other boats for the remainder of the journey, in consequence this Territory escaped paying for a number of passengers whose destination was Dar-es-Salaam. Tanganyika Territory now pays one fourth of the cost of maintenance of the Quarantine station at Zanzibar.

PLAGUE.

Forty-two cases, with Thirty-five deaths, were reported during the year. Twenty-five of these, with eighteen deaths occurred in the endemic areas in the neighbourhood of Singida and Musoma. A new focus of infection was discovered during October, near Mbulu in the Arusha district. It was reported that between August 7th, and August 23rd, fifteen persons had died at a jumbeate, about nine miles from the Administrative headquarters. Further enquiries showed that the symptoms were those of bubonic plague, and that there had been considerable mortality amongst the local rat population. Energetic measures were enforced by the Administrative Officers, and only two more cases occurred, one on the 17th of November, the other on November 29th. More than 2,000 persons were inoculated against plague in this area, no further cases have been reported.

SMALL-POX.

Thirty cases with twelve deaths occurred during 1924. Twenty-five of these cases, and all the deaths were reported from the Bukoba district. Three cases were notified from the Tabora district, and two from Lindi, all of whom recovered.

VACCINATIONS.

120,878 were performed during the year, a detailed table is shown on page 136.

CEREBRO SPINAL MENINGITIS.

Only two cases with one death, were reported both from the Mwanza district.

INFLUENZA.

During the year seven districts reported the presence of epidemic Influenza. The number of cases is not accurately known, but as a general rule the disease was present in a mild form, only thirty-eight deaths being notified. The most severe outbreak occurred in the Tanga area, where twenty-six deaths took place.

DYSENTERY.

Five hundred and seventy-seven cases of Dysentery with 15 deaths were reported from Government Hospitals during 1924, as compared with 293 and 6 in 1923, and 369 and 18 in 1922.

The cases were classified as follows :—

	Cases.	Deaths.
Amoebic	328	11
Bacillary	168	1
Unclassified	81	3
	577	15

Forty-nine Europeans contracted the disease with no deaths. 101 cases of Amoebic Dysentery with 5 deaths, and 73 unclassified with 3 deaths were reported from the hospitals at Morogoro and Kilosa, which are situated near one another on the Central Railway. Diarrhœa is common in both these townships, and there are considerable plantations which employ labourers from other districts of the Territory. Change of climate and unsuitable food are the causes of a considerable incidence of intestinal complaints amongst these labourers, and also amongst the prisoners at the Central Gaol, which is situated at Morogoro. It is probable that many of the cases of dysentery reported from these two stations are cases of enteritis, due to unsuitable diet.

ENTERIC GROUP.

Nine cases of Typhoid fever were reported during the year. The figures for 1922 and 1923 were 18 and 21. Seven of the patients lived at Tabora, five being Europeans and two natives. These cases showed the following seasonal incidence :— Three in March, one in April, one in June, one in August and one in December. Four of the patients are stated to have previously received typhoid vaccine, while no information is available as to the other three.

One European died of the disease.

Kigoma and Mwanza each reported one patient as suffering from Typhoid Fever.

Dar-es-Salaam remained free from the disease during the year.

Incidence of Principal Infectious Diseases during 1922, 1923 and 1924.

Compiled from Telegraphic Returns received Weekly from Medical Stations. The Figures are frequently obtained from Native Information, and are not always reliable.

DISTRICTS.	Small-Pox.						C.S.M.						Population
	1922		1923		1924		1922		1923		1924		
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
NORTHERN AREA—													
Bukoba	7	0	11	9	25	12	—	—	9	6	—	—	320,100
Mwanza	—	—	—	—	—	—	—	—	90	82	2	1	702,300
Arusha	6	2	2	0	—	—	—	—	1	1	—	—	97,700
Usambara	—	—	3	0	—	—	—	—	—	—	—	—	107,400
Moshi	—	—	—	—	—	—	—	—	1	0	—	—	158,200
CENTRAL AREA—													
Tabora	84	14	63	12	3	0	4	4	—	—	—	—	502,100
Dodoma	3	2	1	0	—	—	—	—	—	—	—	—	270,900
Kondoa-Irangi	—	—	1	0	—	—	2	0	—	—	—	—	196,700
Morogoro	11	2	1	0	—	—	—	—	—	—	—	—	174,300
SOUTHERN AREA—													
Iranga	—	—	—	—	—	—	—	—	—	—	—	—	104,800
Mahenge	—	—	—	—	—	—	—	—	—	—	—	—	74,600
Songea	—	—	10	0	—	—	—	—	—	—	—	—	148,200
WESTERN AREA—													
Ujiji	13	5	—	—	—	—	1	1	—	—	—	—	139,500
Ufipa	—	—	—	—	—	—	—	—	—	—	—	—	93,600
Rungwe	—	—	—	—	—	—	—	—	—	—	—	—	237,200
COASTAL AREA—													
Tanga	84	14	98	10	—	—	—	—	—	—	—	—	86,700
Pangani	1	0	2	0	—	—	1	0	—	—	—	—	74,900
Bagamoyo	1	0	1	0	—	—	1	1	—	—	—	—	57,100
Dar-es-Salaam	1	0	—	—	—	—	—	—	—	—	—	—	149,100
Rufiji	150	2	8	0	—	—	—	—	—	—	—	—	83,200
Kilwa	9	4	13	2	2	0	—	—	—	—	—	—	84,000
Lindi	4	0	3	0	—	—	—	—	—	—	—	—	243,400
Mafia Island	16	1	—	—	—	—	—	—	—	—	—	—	10,000
TOTALS	390	46	217	33	30	12	9	6	101	89	2	1	4,116,000

INCIDENCE OF PRINCIPAL INFECTIOUS DISEASES DURING 1922, 1923 AND 1924—*continued.*

DISTRICTS.	Plague.						Influenza.						Population
	1922		1923		1924		1922		1923		1924		
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
NORTHERN AREA—													
Bukoba	—	—	—	—	—	—	1	0	—	—	20	0	320,100
Mwanza	6	2	24	16	17	12	6	1	1	0	—	—	702,300
Arusha	—	—	—	—	17	17	66	6	52	0	—	—	97,700
Usambara	—	—	—	—	—	—	—	—	—	—	—	—	107,400
Moshi	—	—	—	—	—	—	—	—	350	0	—	—	158,200
CENTRAL AREA—													
Tabora	15	15	—	—	—	—	28	1	3	2	—	—	502,100
Dodoma	30	23	15	10	8	6	3	0	359	151	—	—	270,900
Kondoa-Irangi	1	0	—	—	—	—	14	0	—	—	—	—	196,700
Morogoro	—	—	—	—	—	—	107	9	—	—	—	—	174,300
SOUTHERN AREA—													
Iringa	—	—	—	—	—	—	481	18	—	—	—	—	104,800
Mahenge	—	—	—	—	—	—	16	0	26	0	48	0	74,600
Songea	—	—	—	—	—	—	3	1	141	0	—	—	148,200
WESTERN AREA—													
Ujiji	—	—	—	—	—	—	2	0	—	—	—	—	139,500
Ufipa	—	—	—	—	—	—	—	—	217	23	234	9	93,600
Rungwe	—	—	—	—	—	—	23	1	—	—	8	0	237,200
COASTAL AREA—													
Tanga	—	—	—	—	—	—	20	0	—	—	—	26	86,700
Pangani	—	—	—	—	—	—	1	0	—	—	—	—	74,900
Bagamoyo	—	—	—	—	—	—	34	0	—	—	—	—	57,100
Dar-es-Salaam	—	—	—	—	—	—	371	0	—	—	—	—	149,100
Rufiji	—	—	—	—	—	—	—	—	—	—	25	—	83,200
Kilwa	—	—	—	—	—	—	—	—	—	—	—	—	84,000
Lindi	—	—	—	—	—	—	—	—	784	115	209	3	243,400
Mafia Island	—	—	—	—	—	—	—	—	—	—	—	—	10,000
TOTALS	52	40	39	26	42	35	1,176	37	1,933	291	544	38	4,116,000

VACCINATION.

173,550 doses of vaccine were issued by the Director of Laboratory during the year. The following table shows the results that have been reported from the various districts during 1924.

District.	Number vaccinated.	Successful.	Modified.	Failed.	Not seen again.
NORTHERN AREA—					
Bukoba	924	—	—	—	924
Mwanza	10,097	7,183	1,249	1,399	266
Arusha	1,880	1,011	—	419	450
Usambara	6,890	1,388	748	613	4,141
Moshi	13,906	1,995	332	5,354	6,225
CENTRAL AREA—					
Tabora	14,568	3,056	905	1,043	9,564
Dodoma	8,765	6,975	234	1,046	510
Kondoa-Irangi	848	473	189	186	—
Morogoro	1,467	462	185	149	671
SOUTHERN AREA—					
Iringa	9,600	5,105	2,654	1,296	545
Mahenge	1,081	607	148	324	2
Songea	1,560	994	334	232	—
WESTERN AREA—					
Ujiji	506	265	69	84	88
Ufipa	1,479	216	55	928	280
Rungwe	3,418	1,947	—	896	575
COSTAL AREA—					
Tanga	4,487	—	—	2	4,485
Pangani	2,300	1,389	116	158	637
Bagamoyo	765	343	170	146	106
Dar-es-Salaam..	20,791	7,958	1,083	6,227	5,523
Rufiji	6,700	3,909	929	848	1,014
Kilwa	4,335	2,638	—	734	963
Lindi	4,511	1,292	937	872	1,410
TOTALS	120,878	49,206	10,337	22,956	38,379

ANKYLOSTOMIASIS.

The Acting Keeper of German Records has recently supplied the Medical Department with an interesting summary of the reports on this disease made by the German Medical Department. In the 1913-14 report the Principal Medical Officer stated that Ankylostomiasis was the most prevalent disease amongst the natives, and was still on the increase. He gives a series of the percentages of infection in different districts varying from 4·6 per cent. in the highlands near Lake Tanganyika, to 90 per cent. in the Songea district. In the immediate neighbourhood of Dar-es-Salaam, it was found that about 40 per cent. of the inhabitants were infected. The most successful treatment was Calomel followed by Beta Naphthol.

In 1913 the Tanga labour inspector reported that on some plantations, 5, 7, and in one case 11 per cent. of the labourers had died, and that the cause of death in the majority was Ankylostomiasis.

In 1914 the Police at Wilhelmstal issued a Police Ordinance intended to check the spread of the disease. Sections were inserted making it compulsory to provide proper latrine accommodation in villages, labour camps and on plantations. The Medical Officer at Dar-es-Salaam, after a tour through his district, stated that he was of opinion that these latrines in the villages had only been erected to satisfy the Government, and were not used. The old insanitary pits were still in use and these he had ordered to be filled up.

In many districts of the Territory, Ankylostomiasis is still the most prevalent disease, 487 in-patients and 2487 out-patients were treated in Government hospitals during 1924, while 109 deaths are reported from this disease. The distribution of these patients amongst the different Government Hospitals is shown in Table XIV, on pages 91 and 92 of this report.

Tanga hospital heads the list with a total of 1,370 patients. Dr. Nixon, the Medical Officer of Health at Tanga, discusses the situation in the district on page 181 of this report.

It is hoped that during 1925 a campaign against Ankylostomiasis may be started in the Tanga district, combined with an attempt to improve the sanitary conditions in some of the villages. This suggested experiment is referred to on page 193.

MALARIA.

Malaria continues to provide the largest number of patients at the Government Hospitals. 22,764 cases were treated during 1924. The numbers of Europeans and non-Europeans are given below :—

European In-patients	394
European Out-patients	184
Non-European In-patients	4,400
Non-European Out-patients	17,786

Three European deaths, and 22 non-European deaths were attributed to Malaria.

This total of 22,764 was reported from 33 Government Hospitals, the types of Malaria being classified as follows :—

Benign Tertian Malaria	11,155
Quartan Malaria	189
Sub-tertian Malaria	11,015
Chronic Malaria	405

A large number of cases, particularly from the smaller hospitals, are classified clinically and the figures as a whole cannot be regarded as reliable.

The table reproduced in the annual reports for 1922 and 1923 is repeated below. The sick rate per 1,000 is calculated on the Census return for 1921, no other reliable figures being available. It is certain that there is a very considerable increase in the European population since 1921, and in consequence the sick rates shown in the table are higher than they would be had it been possible to calculate the malarial incidence on the basis of the actual number of Europeans resident in the Territory during 1924.

MALARIA: EUROPEANS.

Districts.	Area.	Sick rate per 100.
Moshi Arusha	Kilimanjaro	156
Bukoba Mwanza	Lake Victoria	264
Rungwe Iringa Songea Ufipa Mahenge	South Western	313
Morogoro Dodoma Tabora Ujiji Kondoa-Irangi	Central Railway	305
Tanga Pangani Bagamoyo Kilwa Lindi Dar-es-Salaam Mafia Rufiji	Costal	255

BLACKWATER FEVER.

Sixteen Europeans and fifteen non-Europeans were treated for Blackwater Fever during 1924. Of these two Europeans and three non-Europeans died, a death rate of 12·5 and 20 per cent. respectively.

The figures for 1923 were nineteen Europeans, and 16 non-Europeans, with a death rate of 21 and 19 per cent. Special reports received on cases of Blackwater Fever are attached to the end of this report.

TRYPANOSOMIASIS.

The discovery of further cases of Sleeping Sickness in additional areas of the Territory is ominous. Fifteen cases have been found in the Ujiji district, eight being treated at Kigoma Hospital, and seven discovered by Dr. Wallace, the Medical Officer, Kigoma, in the course of two short tours along the lake shore. It is probable that all these cases were infected by G. Palpalis, which infests the shores of Lake Tanganyika, and there is little doubt that many more infected people will be found when it is possible to make a detailed survey of the inhabitants of the lake shore. It is hoped that Dr. Maclean will be able to undertake this survey when his investigations in Ufipa and Tabora are completed.

Mwanza infected area.—There is little to add to the reports of this outbreak which are included in the Annual Medical Reports 1922 and 1923. Towards the end of 1923, it was decided that a member of the medical staff should receive special instruction in Sleeping Sickness work, and that on his return from leave he should be stationed in the Mwanza area. It was most unfortunate that this Medical Officer fell sick immediately after his return to the Territory. He was eventually invalided to England, and consequently it has only been possible to station native dressers in the Sleeping Sickness area, with occasional visits from a Sub-Assistant Surgeon, and one visit from the M.O., Mwanza. Where the instructions issued by the Senior Commissioner have been obeyed by the natives, the disease appears to have been stamped out, only 28 cases being reported during the year from the whole area. An Administrative Officer has now been stationed in this district, and early in 1925 a Medical Officer was sent to Maswa, which is situated in the infected area. It is realised that the absence of medical attention must have had an unfortunate effect on the minds of the local natives, but shortage of staff made it impossible to provide adequate medical supervision.

New outbreaks.—It is estimated that between one half and two thirds of the whole Territory is infested with tsetse of the Morsitans group. Two hitherto unknown foci of human trypanosomiasis have been discovered during 1924. The first of these was situated south of Liwale, a sub-station of the Kilwa district. The outbreak appears to have been a small one, only three cases being discovered amongst the hundreds of natives examined, while the local inhabitants estimated the total number of deaths during 1923 and early 1924 at twenty. The second focus is a much more serious one, and is being investigated at the present time. It is situated in the north eastern portion of Ufipa, and the southern part of the Tabora district, and lies across the main trade routes between Tabora and the south western areas of the Territory. Dr. Maclean, who has had experience of Sleeping Sickness whilst in charge of the Mwanza district, has been detailed for duty in this area, and will be joined early in 1925 by two additional Medical Officers. By the end of 1924 Dr. Maclean had discovered 32 cases of Sleeping Sickness, and estimates that the infected area is approximately 10,000 square miles in extent.

It is probable that scattered cases have been occurring in the area for years, and have been diagnosed by the local natives as Ankylostomiasis, but information obtained from intelligent natives shows that from 1921 onwards cases have been occurring with increasing frequency. In five small villages with a total population of 111, twenty-five cases of Sleeping Sickness were found by Dr. Maclean between November 1924 and February 1925, a percentage of 22·5 infected. These villages are all situated within the fly infested area, the clearings are small, and the inhabitants are constantly liable to attacks by fly. The cases found are being treated mainly with Bayers "205" and with Tryparsamide, and efforts are now being made to collect the inhabitants in as fly free areas as possible, and by extending cultivation round the villages to drive the fly away from the immediate vicinity of habitations. The native roads and the paths have been closed for through traffic, and the movements of natives restricted as far as possible.

Cases of the Rhodesian type of Sleeping Sickness are known to occur in the Kilwa-Lindi area, in Tabora and Ufipa, and in the Mwanza district. It is practically certain that other parts of the morsitans infested areas of the Territory will be found to be infected as investigations are extended.

It is understood that during 1925 Mr. Swynnerton, the Director of Game Preservation, is to be provided with additional staff to continue and extend his investigations into measures which can be adopted to eradicate the tsetse fly. The problem is a serious one, and unless something tangible can be done in the near future, there is a grave possibility that large areas at present under cultivation will have to be evacuated by the human inhabitants, and abandoned to the tsetse fly.

LEPROSY.

There are no new figures available regarding the leper camps distributed throughout the Territory.

A full account of the position with maps was submitted to the Secretary of State for the Colonies, in a Memorandum forwarded by His Excellency the Governor, under cover of Despatch No. 164 of 1924.

URBAN SANITATION.

The year under review was spent in consolidating and improving the work initiated in previous years. In Dar-es-Salaam the construction of the new native township has proceeded on satisfactory lines, and when the roads are completed, this area of the town, which includes the new market, will be a model native township. At Tanga, the reopening and repairing of the outlet to the School Street drain together with the reconstruction of the drains along the wharf line, will remove one of the most prolific mosquito breeding places in the township area. The alterations to the old German laundry have been completed by the Public Works Department, and Tanga has now an excellent Infectious Diseases Hospital. At Mwanza Dr. Thomson and Mr. Sharma, the Sanitary Inspector, have made considerable improvement, particularly in the native area. It is hoped that the increased staff asked for in the estimates will be approved, it will then be possible to provide trained European supervision for towns other than Dar-es-Salaam, Tanga and Tabora. An increase in the native sanitary labour, where no European supervision is possible, is frequently a waste of money.

One of the least satisfactory features of many of the townships in the Territory is the absence of good water supplies. The shortage of water at Dar-es-Salaam is referred to by Dr. Scott on page 155, while Tanga is dependent on wells which act as mosquito breeding places. At Lindi, drinking water has to be brought by boat from the other side of the harbour. While at Mwanza the water is obtained in tins from the lake shore, and frequently contains considerable quantities of semi-decayed vegetable matter. Should the appointment of a Sanitary Engineer to the staff of the P.W.D. be approved, it should be possible at least to draw up schemes to provide the more important towns with adequate pure water supplies.

A second menace to public health exists in all towns in the Territory. The habit of storing large quantities of grain, cotton, hides and other rat attracting produce in shops and dwelling rooms, is ubiquitous throughout the whole country. Efforts are being made to make it compulsory for such merchandise to be stored in rat-proof bins or godowns, but while Government stores and sheds are not rat proofed, it does not seem fair to compel small traders to incur considerable expense.

Dr. Haworth's investigations into the question of mosquitoes breeding in coconut palms have been continued, and are referred to by Drs. Scott and Nixon on pages 144 and 180, and in Appendix IV. This problem will not be definitely solved until the investigations can be carried out under the strictest European supervision.

In September 1924, a committee was appointed to consider the recommendation of the Tropical Medical and Sanitary Advisory Committee, that the trees in the Botanical Gardens at Dar-es-Salaam, which cut off the sea breezes from the greater part of the town, should be cleared away, and that the Gardens should be turned into an open space. *Inter alia*, the committee recommended that " The major portion of the mango trees " in the Botanical Gardens, including those in Government House grounds and the " Veterinary paddock, should receive attention first, those suffering from blight (the " large majority) being completely removed. Thereafter the greater part of the coconut " palms in the same area should be removed, only isolated specimens of artistic value " being retained. Avenue trees should be conserved as far as possible, but thinned and " pollarded when necessary ; a beginning to be made upon the trees in and near Park " Avenue. Coconut palms overhanging public roads to be removed."

By April, 1925, eighty-six trees had been removed, tabulated as under :—

	Botanical Gardens.	Other Areas.
Coconuts	40	18
Mangoes	10	5
Other Trees	5	8
Total ..	55	31

Low branches of mango and other trees in Government House grounds, and the Botanical Gardens had also been removed while the work of thinning the avenues was then in progress. The removal of this small number of trees has resulted in an improvement in the conditions in some of the houses situated in the centre of the residential area, but a very much larger number will have to be removed before the conditions in this area become comparable with those of the residences situated on the sea front.

TOWNSHIP RULES.

Practical experience of the application of the Township Rules has shown that many amendments are needed. So considerable are the alterations required, that the Rules have been practically redrafted, and will be issued as new Rules during 1925.

In April, 1924, Rules were published in the Gazette governing the construction and conduct of Aerated Water and Ice Factories. These Rules are comprehensive, and give Township Authorities all the powers required to ensure that Aerated Water and Ice are produced under satisfactory sanitary conditions.

In the Annual Report for 1923, attention was drawn to the increase in the clerical work performed by Medical Officers, due to their appointment as Executive Officers of the Township Authorities. It has now been decided that, except in townships where a Medical Officer of Health is stationed, the duties of Executive Officer will be carried out by an Administrative Officer.

CENTRAL TOWN PLANNING AND BUILDING COMMITTEE.

Twelve meetings of this Committee were held during the year. Sites were selected for a large number of Government buildings in the different Townships. The general lay-out of the following Townships was discussed and approved :— Arusha, Kilosa, Morogoro, Tukuyu, Igali, Bukoba and Songea. The general principal of the town plan of Mwanza was approved, but a final decision cannot be reached until more definite information as to Railway requirements is available.

REPORT OF THE MEDICAL OFFICER OF HEALTH FOR DAR-ES-SALAAM,

BY DR. R. R. SCOTT, M.C., M.B., B.S., M.R.C.S., L.R.C.P., D.P.H.,
Senior Medical Officer of Health.

INTRODUCTORY.

The year 1924 has been marked by no event affecting deeply the administration of the Public Health of Dar-es-Salaam. The period has been spent in consolidating the structure which has been slowly erected on the foundation of previous years.

Greater continuity in all branches of the work has been possible owing to the relatively fewer changes of staff which have taken place. Every effort has been made to render the different branches of the office more efficient, and the tendency to embark on new lines of work before adequate preparation has been made has been resisted as far as possible.

One important new branch has, however, been opened up with the appointment of a Sister to inaugurate a Maternity and Child Welfare scheme. By comparison with the results of other countries this is sure to prove of the greatest importance to the community.

The school medical work is closely allied to this branch, and it has been possible to pay greater attention thereto, while great improvement in the general condition of the children is noticeable since the inauguration of the work in 1921.

The work of the Township Authority is becoming more stereotyped, and though still absorbing an undue amount of attention, is somewhat less serious than in 1923. The appointment of a Building Inspector was specially recommended to the Secretary of State at the end of the year, and has since been approved. It is hoped that this appointment will relieve the Medical Officer of Health of much of the routine work in connection with buildings which has hitherto developed upon him and upon the Sanitary Superintendents.

The appointment in the middle of the year of an additional Sanitary Superintendent who possesses the special certificate in Meat and Food inspection enabled greater attention to be given to Markets, and food and milk supply, and to the anti-rat campaign.

No epidemic occurred during the year, but the amount of endemic malaria in spite of a low rainfall still gives serious food for reflection. Is the money we are spending on anti-mosquito measures being spent to the best advantage, and ought we not to spend more capital and reduce the cost of maintenance of temporary work ?

Tuition of the Native Sanitary Inspectors was maintained throughout the year, and an examination was held at which ten candidates out of twelve obtained certificates.

The lack of reliable statistics of population and births becomes more serious from year to year. As far as one can judge, the town is growing rapidly, and the longer we postpone the collection of this very necessary information, the less valuable are the deductions which we make from the information now at our disposal.

PREVENTIVE MEASURES.

III. *Mosquito-borne Disease :—*

The prevention of mosquito breeding has been carried on as before ; extension of the area examined has taken place in the Kurasini and Msimbazi districts. The only important breeding area within the Township boundary not yet under regular examination, is the land owned by the Mission at Msimbazi, and lying west of the bridges on the Bagamoyo road. This land is largely under cultivation, and is a continuation of the Msimbazi valley. It is most probably a prolific producer of anophelines, and will have to be tackled as soon as funds permit.

Many of the breeding places within the inhabited part of the town have now been eliminated, but far too many remain. The most serious are the lower end of Gerezani creek, and the Msimbazi valley, which adjoins the new native town.

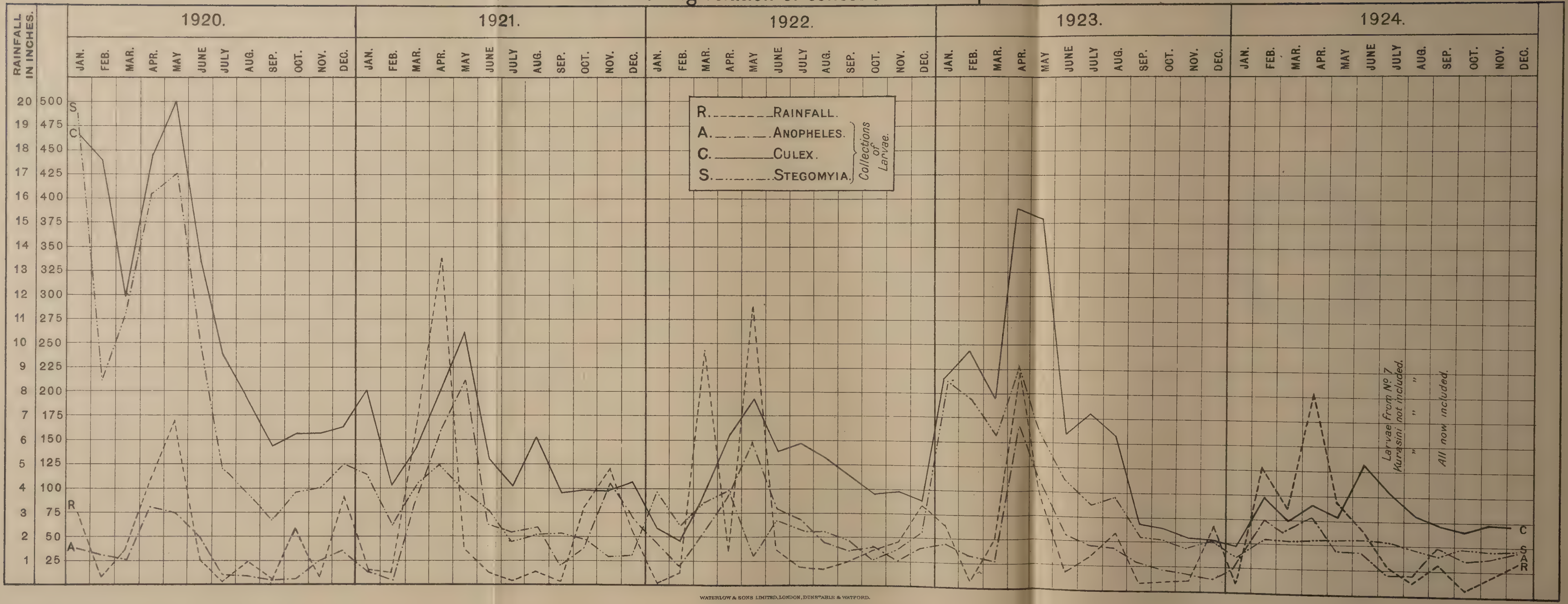
No funds were provided in the Public Works Department Estimates for any large surface drainage or filling operations ; the Medical Department still has to find the funds and skilled labour to maintain the sandy ditches, of which there are some twenty miles in the township. It is again submitted that much of this expenditure is wasted, and that the temporary drains should be replaced by permanent work.

It is hoped that the appointment of a Sanitary Engineer, if approved, will allow of definite proposals in this direction being submitted, and that the necessary funds for their execution may be found.

COMPARATIVE TABLE SHOWING COLLECTIONS OF MOSQUITO LARVÆ FOUND IN THE TOWNSHIP.

	1922.	1923.	1924.
Anopheles	690	636	574
Culex	1,332	2,166	1,115
Stegomyia	697	1,457	630
TOTAL	2,719	4,259	2,319

DAR-ES-SALAAM. Chart showing relation of collections of Mosquito Larvae found to Rainfall.



WATERLOW & SONS LIMITED, LONDON, DUNSTABLE & WATFORD.

ANALYSIS OF FINDINGS OF MOSQUITO LARVÆ, DAR-ES-SALAAM TOWNSHIP, 1924.

MONTHLY TOTALS.

	Rainfall (in inches)	Anophelines.	Culex.	Stegomyia.
January	0·490	24	48	41
February	4·902	70	110	54
March	3·170	49	74	58
April	8·090	79	91	62
May	3·795	46	84	64
June	2·865	44	130	69
July	1·090	30	137	51
August	0·410	72	159	47
September	1·540	49	72	44
October	0·265	33	63	51
November	0·740	40	75	44
December	1·590	38	72	45
TOTAL	28·947	574	1,115	630

The chief recorded breeding places of anophelines were :—

	1922	1923	1924
1. Dockyard and Kurasini (seven creeks containing fresh-water springs)	140	171	183
2. Gerezani Valley	154	153	126
3. Town (swampy places, road pools and surface drains within the actual town regularly searched by a special man)	127	125	50
4. Msimbazi Valley	93	80	123
5. Town (casual finds by the Sectional Inspectors)	142	68	92

The above table shows how constant the various permanent anopheline breeding grounds remain from year to year.

COMPARATIVE TABLE OF ARTIFICIAL MOSQUITO BREEDING PLACES.

	Anopheles.			Culex.			Stegomyia.		
	1922	1923	1924	1922	1923	1924	1922	1923	1924
Tins	—	—	—	—	—	13	—	—	52
Jars	—	—	—	—	—	14	—	—	60
Flower pots, etc.	—	—	—	—	—	7	—	—	8
Drums and barrels	—	—	2	—	—	47	—	—	111
Roof tanks and gutters	—	—	—	—	—	3	—	—	7
Unclassified iron containers	—	—	1	—	—	17	—	—	28
Defective Structure	—	—	1	—	—	5	—	—	3
Excavations and borrow pits ..	—	—	4	—	—	1	—	—	—
Dhows (water containers in) ..	—	—	—	8	—	2	77	37	85
Tanks	11	3	4	171	753	85	403	1,200	225
Drains	—	—	31	—	—	100	—	—	6
Pools	—	—	24	—	—	38	—	—	1
Soakage and cesspits	—	—	—	—	—	103	—	—	1
Wells	11	13	8	59	75	29	—	1	5
Rubbish	—	—	—	5	101	2	15	136	4
Galley trap and street drains ..	—	—	—	155	138	191	—	—	—

The reduction in the number of collections of Culex and Stegomyia larvæ found is gratifying, but there remain too many for either safety or comfort.

The monthly number of collections of Stegomyia larvæ varied between a minimum of 41, and a maximum of 69, the mean being 52. A heavy rise in Stegomyia incidence indicates storage of water by natives in jars and tins, and suggests inefficient supervision. The Stegomyia curve ought to remain as nearly as possible flat throughout the year.

The greatest number (225) of Stegomyia larvæ was found in tanks, as might be expected. In the residential area the tins of water which are placed under meat safes and ice chests, to prevent the ants from obtaining access thereto, form one of the commonest sources of breeding.

Of Culex larvæ, the greatest number (191) was found in gully traps and street gullies. These are numbered and searched regularly. The ideal trap in which mosquitoes cannot breed has not yet appeared.

Adult Mosquitoes caught, 1924.

Anopheles	169
Culex	19,306
Stegomyia	90

The Anophelines were caught in the following buildings, which are searched weekly for adult mosquitoes :—

K.A.R. Depot, Mkongeni	on 8	occasions
,, New Mess (above Dockyard)	,, 5	,,
,, House No. 1 (above Gerezani creek) ...	,, 3	,,
,, Old Mess (South lines)	,, 2	,,
,, Sergeants' Mess (Near No. 2 creek, Kurazini) ..	,, 2	,,
Gerezani Road, House No. 2	,, 3	,,
Kichwele Street, House of Mzee Hussein ..	,, 4	,,
,, ,, ,, ,, Fundi Mika	,, 3	,,
,, ,, ,, ,, Ahmed Abed ..	,, 2	,,
European Hospital	,, 3	,,
Bagamoyo Street, Infectious Diseases Hospital..	,, 1	,,

COCONUT TREES.

The native employed during 1923 on this work continued the inspection of the crowns of the coconut trees during 1924.

He was joined by another native tree climber in October.

Up till the month of September, this work was done without skilled supervision. During that month the native work-room assistant accompanied the climbers on their rounds on several occasions, viz. (1st, 3rd, 4th, 5th, 7th, 9th, 10th, 11th, 12th). The fall in the number of larvæ brought in during this month is surprising.

During October, November and December, the two climbers were accompanied by a skilled and trusted mosquito finder of long service. This was done in order that accurate observations might be taken of the findings in the tins which had been affixed to the trees at different heights, in the attempt to fix the optimum height for the breeding of Stegomyia. The results of this experiment, which was carried out at the suggestion of the Honourable the Principal Medical Officer, are shown in Appendix IV. The tops of these and other trees were searched by the two climbers in the presence (on the ground) of the skilled finder, but no larvæ have been produced since the climbers were accompanied by the skilled finder.

COMPARATIVE TABLE OF COCONUT TREES IN WHICH MOSQUITO LARVÆ WERE STATED TO HAVE BEEN FOUND DURING 1923-24.

Month.	1923.				1924.			
	Rainfall (inches).	Trees examined	Containing Larvæ.	% of Trees containing Larvæ.	Rainfall (inches).	Trees examined.	Containing Larvæ.	% of Trees containing Larvæ.
January ..	—	—	—	—	0·49	348	70	—
February ..	—	—	—	—	4·902	346	82	—
March	—	—	—	—	3·170	342	70	—
April	—	—	—	—	8·090	278	61	—
May	—	—	—	—	3·795	347	86	—
June	—	—	—	—	2·865	349	85	—
July	—	—	—	—	1·090	339	80	—
August	2·29	333	50	—	0·410	306	65	—
September ..	0·27	314	73	—	1·540	261	4	—
October ..	0·38	387	87	—	0·265	300	—	—
November ..	0·47	384	83	—	0·740	90	—	—
December ..	2·62	353	78	—	1·590	302	—	—
		1,771	371	20·9		3,608	603	16·7

The percentage of trees containing larvæ from January to August, 1924, is 22·5.

As a result of this failure to find any larvæ in the presence of reliable witnesses, it is considered that further careful investigation of the whole problem is necessary, before action is taken in regard to coconut palms on the grounds of mosquito breeding. It is understood that an investigation was carried out in Mauritius by an entomologist with negative results.

FILLING AND DRAINAGE OF SWAMPS.

No. 7 Creek, beyond Kurasini Mission was undertaken for the first time in August and September, and a sum of £50 was allocated from Sanitary labour funds for the filling and drainage of its two branches. The work was completed on the usual lines in two months, and the creek rendered safe.

Filling was continued in Gerezani as labour permitted, and a little progress was made. This area is the most serious permanent breeding ground near the town and calls for the earliest possible attention on the appointment of a Sanitary Engineer. It requires not merely filling, but careful calculation of the permanent area required to hold the volume of water which accumulates when a neap tide and heavy rain occur together.

The creek has been surveyed through the kindness of the Land Officer, and it was found that its area had now been reduced by filling to about two-thirds of its area when surveyed in 1921, but extensive overflowing occurs at neap tides. The enclosed area of water now measures about seven acres. It is believed that this area may have to be increased to allow for overflow in the circumstances named above.

Provision for the replacement of many of the open side branches of the drains in this and other valleys by agricultural tile drain pipes, was asked for in the Estimates, 1925-26. It is believed that this would reduce the cost of maintenance of the temporary drains to a considerable extent.

In October it was found that extensive breeding of anophelines was taking place in portions of the Msimbazi valley, which had not hitherto been maintained ; certain old military drains were opened up, and seepage areas attended to with immediate reduction of the anopheline breeding.

No re-alignment of drains is being undertaken in this area, until the work can be properly planned by an Engineer.

A further swamp remains to be investigated beyond the K.A.R. range. It forms the eighth creek discharging into the South Harbour. It is of the same formation, but on a larger scale, as the other seven creeks, and is at present a very valuable vegetable garden. It is situated on private land, and is partly outside the Township boundary. It is producing anopheline larvæ in very large numbers.

It appears that steps may have to be taken to render this creek free from mosquito breeding, since it probably acts as a mosquito reservoir, from which the other creeks and Gerezani valley may be permanently supplied.

This creek and the portion of the Msimbazi valley beyond the bridges, are the two furthest and largest breeding places now remaining untouched.

LENGTH OF DRAINS MAINTAINED DURING 1924.

	Feet.	Yards.
GEREZANI.—Comprises Gerezani Creek, all the drains around it, the drains along the valley as a whole, with branch drains in Mzee-bin-Akida's shamba, south arm (Kheko), north-western arm (Msakara) as far as Pugu Road	34,831	11,610⅓
MSIMBAZI.—Includes drains in Mohamed Abedi's shamba, Mchikichini, up to borrow pit	9,745	3,248⅓
DOCKYARD.—The drains behind Dockyard and the creeks falling into South Harbour numbered 1 to 7, inclusive of Barracks' swamp ..	15,422	5,140⅔
BAGAMOYO STREET.—Bagamoyo swamp, drains along Caravan Road, carrier corps swamp	5,186	1,728⅔
UPANGA.—Main drain from Bagamoyo pool to sea view, Upanga swamps, golf course, with surface drains	16,701	5,567
RESIDENTIAL AREA.—Drains in Versailles Street, Upanga Road, Main Acacia and Garden Avenues, and concrete drain from Garden Avenue to old European cemetery	16,408	5,469⅓
COMMERCIAL AREA.—The surface drain along Acacia Avenue, Windsor and Selous Streets, with small drain in Arab Street, Stanley Street, and several other places	24,224	8,074⅔
TOTAL, 23·2 miles	122,517	40,839

Malaria Infection.

A total of 700 cases of Malaria was notified, of which 520 were confirmed by blood examination. Only 12 cases were definitely ascribed to infection outside Dar-es-Salaam.

TABLE OF MALARIA NOTIFICATIONS.

	Sub-tertian.	Benign-tertian.	Total confirmed by blood examination.	Not confirmed by blood examination.	Total.	Percentage of Total Notifications confirmed by blood examination.
1923	—	—	—	—	883	59%
1924	503	17	520	180	700	74%

No cases of Blackwater Fever were notified.

ANALYSIS OF THE DISTRICTS FROM WHICH THE CONFIRMED CASES WERE NOTIFIED GIVES THE FOLLOWING RESULTS.

	Notifications.	Probable source of Infection.
King's African Rifles	92	Gerezani and Kurasini.
Native quarter (Kitumbini and Karia Koo)	76	Msimbazi.
Arab Street..	52	Gerezani.
School children (residences not given)	48	Various.
Acacia Avenue	41	Gerezani.
Kichwele Street	29	Gerezani and Kitumbini.
Bagamoyo Street	27	Various.
Selous Street and Kisutu	26	,,
Others	129	,,
TOTAL (confirmed cases)	520	

The figures show a reduction of 20 % in the number of cases notified compared with 1923, and an increase of 15 % in the percentage of cases confirmed by blood examination, which is very creditable to the medical practitioners responsible. The notifications are voluntary and are rendered monthly.

They point, however, to the grave responsibility which is incurred by failure to apply more thorough anti-malarial measures in Gezerani and Msimbazi.

Mosquitoes.

The Anopheline mosquitoes identified in Dar-es-Salaam since 1919 are :—

A. Costalis.

A. Funestus.

A. Mauritianus (rare)
(breeding place not found, but occurs in vicinity
of European Hospital).

These were kindly identified by Dr. Aders of Zanzibar.

A small collection of mosquitoes was kindly identified by Mr. Edwards of the British Museum, in 1923, and included the following culicines :—

Lutzia tigripes	(Theo.)
Culex Sitiens	(Wied)
,, Fatigans	(,,)
,, Tipuliformis	(Theo.)
Meg.(Toxorhynchites) brevipalpis	(,,)
Aedes Simpsoni	(,,)
,, (Skusia) Pembaensis	(,,)
(all in Crab-holes)	
Aedes Argenteus (Stegomyia fasciata).	

A. W. J. Pomeroy in " The prophylaxis of Malaria in Dar-es-Salaam " Journal of R.A.M.C., July, 1920, Vol. XXXV, No. 1, p. 55, gives the following additional species :—

Anopheles maculipalpis	(Giles)
Banksinella lineatopennis	(Ludlow)
Culex bitaeniorhynchus	(Giles)
,, consimilis	(Newstead)
,, anulsioris	(Theo.)
,, invidiosus	(,,)
,, duttoni	(,,)
,, thalassius	(,,)
,, aurantapex	(Edw.)
,, laurenti	(Newstead)
,, simpsoni	(Theo.)

Dr. Haworth in his paper on " Mosquitoes and Cocoanut Palms " (Transaction of the Royal Society of Tropical Medicine and Hygiene, 1924, October, Vol. XVIII, No. 4, pp. 162 - 189), gives the following additional identifications :—

Anopheles praetoriensis	(Gough)
Aedes metallicus	(Edw.)
,, fulgens	(Edw.)
,, adersi	(Edw.)
,, soleatus	(,,)
,, pseudonigeria	(Theo.)
Culex nebulosus	(,,)
,, horridus	(Edw.)
,, decens	(Theo.)
Eretmopodites quinquevittatus	(,,)
Mansonioides uniformis	(,,)
Culicomyia nebulosa	(,,)
Cohlerotatus albocephalus	(,,)
Harpagomyia taeniarostris	(,,)
Uranotaenia mashonaensis	(,,)

Filariasis.

No special investigations into, or measures against this disease were taken. Every endeavour is taken to prevent the breeding of mosquitoes in the native quarter as in all parts of the town.

OTHER INSECT BORNE DISEASES.

No tsetse flies were caught during the year.

Plague.

Reorganisation of the anti-rat work was undertaken by Mr. Humphrey in the second half of the year, with very satisfactory results.

	Total Rats caught.	Average number of Catchers employed.	Average Rats per Catcher.
1922	4,355	2½	1,742
1923	10,851	3	3,283
1924 {January to June, 5,663 July to December, 8,981} ..	14,644	3	4,881

The following table is given from Mr. Humphrey's report for July–December :—

RATS CAUGHT.

Rattus Rattus	8,956
Rattus Norvegicus	25
Total	8,981

Catchers employed	3	
Average number of traps used daily	160	
Total number of traps laid	23,592	
Percentage of rats caught per trap laid ..	38·20	
Cost (without overhead charges)		
Labour		Shs. 522.00
Bait		,, 70.00
Depreciation of traps		,, 20.00
Total		Shs. 612.00

Cost per rat caught .. .. cents. 6·82.

The Rattus Norvegicus were caught in the following places :—

Old Market	11	(probably from untrapped sewer).
Dhows	6	
Sewa Hadji Hospital	8	(probably from old fashioned trough latrines).
	25	

Mr. Humphrey found that the "Nipper" break-back trap with moveable bait platform gives the best results. Poor results on the whole have been obtained with other traps tried, which include :—

3 varieties of cage trap.
1 variety of break-back trap (fixed bait platform).
1 drowning trap (automatic re-setting).

Clayton gas was tried in a large sewer without success. It is thought that insufficient concentration of gas was obtained owing to the very large area of the sewer, its numerous branches, and its damp, soft, masonry walls. Bird-lime as used for fly-catching was tried without success.

Baits of various kinds were tried, the most successful being raw cassava root, cut into slices fresh. Bread was the next best bait.

POISONS.

Barium Carbonate, Strychnine, Sodium Arsenite, Plaster of Paris, and "Rodine" were tested with various vehicles.

The conclusions arrived at by Mr. Humphrey were :—

1. Maize meal or wheat flour and Barium Carbonate, made up with water without the addition of salt, ghee, dripping or butter is the most attractive bait.
2. Maize flour is the best vehicle, as it is almost as attractive as any other vehicle, and certainly much more economical.
3. A bait made according to the following formula gave the best results :—

   Barium Carbonate 7 grammes or 108 grains
   Maize meal 50 ,, or 771 ,,

   made into a stiff paste with water makes 50 baits, containing approximately two grains Barium Carbonate per bait.
4. A dose of 2 grains of Barium Carbonate proved to be lethal for Rattus Rattus in from 4 – 36 hours. A dose of 3 – 4 grains is required to ensure the killing of Rattus Norvegicus. (5 baits containing 2·2 grains were eaten without fatal result, while seven 3 grain baits were eaten causing 3 deaths.)
5. Baits must be fresh, i.e., mixed just before being laid.
6. Handling by man does not make poison baits or baited traps less effective.

An ingenious and simple machine for the sub-division of Barium Carbonate baits into portions containing the correct dose was made by Mr. Humphrey, and has proved to save time when a large number of baits are required.

FLEAS.

The fleas taken from rats, and identified by the Director of Laboratory were

Dermatophelus Penatrans.
Xenopsylla cheopis
,, astia.
Pulex irritans.

IDENTIFICATION OF RATS.

Four Rat Skins were sent to the British Museum, and were examined and reported on by Mr. Hinton, to whom our thanks are due.

The first two were sent without skulls, and were reported as "skins of the brown rat, Rattus Norvegicus, but determination in the absence of the skull is not too easy."

The second two were identified as Rattus Rattus Alexandrinus and Rattus Norvegicus.

RELAPSING FEVER.

Twenty-nine cases have been notified :—

Senior Medical Officer, European Hospital.	Medical Officer Sewa Hadji Hospital.	Private Practitioners.	Total.
10	18	1	29

Of the above 7 were Europeans, 3 Asiatics and 19 Africans, and all cases into which inquiry was made (11) could be attributed to infection contracted outside Dar-es-Salaam. No ticks (Ornithodorus) were found in Dar-es-Salaam. One Ornithodorus moubata was sent in from Ruvu, 60 miles up the railway.

SOURCES OF CERTAIN CASES OF RELAPSING FEVER.

European Cases.	Asiatic Cases.	African.
Anglo-Belgian boundary	Rufiji (2)	Tanga
Tabora	Central Railway	—
Songea	—	—
Pugu (Minaki)	—	—
Bagamoyo	—	—
Rufiji (2)	—	—
Dodoma (Buigiri)	—	—

OTHER NOTIFIABLE DISEASES.

For admissions to Infectious Diseases Hospital see Table VI.

No epidemic occurred.

Six deaths occurred, all from Tuberculosis of the lungs.

SUMMARY OF INFECTIOUS DISEASES NOTIFIED DURING 1924.

	By S.M.O., European Hospital.	By M.O., S. Hadji Hospital.	By M.O.H.	By Private Practitioners.	Total.
Chicken-pox	—	8	4	—	12
Influenza	30	5	—	7	42
Leprosy	—	5	11	—	16
Mumps	—	5	18	3	26
Measles	—	16	8	14	38
Spirillum Fever	10	18	—	1	29
Tuberculosis (Lungs)	—	26	2	3	31
Yaws	—	344	—	—	344
TOTAL.. ..	40	427	43	28	538

TUBERCULOSIS OF THE LUNGS.

	Cases notified.	Deaths.	
		Certified.	Notified.
1923 *	9	17	3
1924	31	14	10

* Disease was made notifiable on 14th June, 1923.

The percentage of deaths form Tuberculosis out of total deaths is as under :—

	All causes.	Tuberculosis of Lungs.	Percentage of deaths from Tuberculosis over all.
Certified deaths	152	14	9·2
Notified ,, ...	194	10	5·1
TOTAL	346	24	6·9

The percentage of total deaths for 1923 was 6·1.

I regard this disease as a most serious menace, and while perhaps less disturbing to the peace and pockets of the community than the spectacular diseases of Plague and Small-pox, its further spread should be prevented by every means in our power.

The complete lack of sanatorium treatment for early and last-stage cases merits consideration.

Fly-borne Intestinal Disease :—

Enteric Group.—No cases were notified.

Dysentery.—One Asiatic and two African deaths were certified from this cause.

Diarrhœa.—One Asiatic death from diarrhœa and one from primary infantile diarrhœa were certified. Two Asiatic deaths from enteritis were certified.

Total deaths from diarrhœa.—Asiatic, 5 ; African, 2.

Small-pox :—

No case occurred.

VACCINATIONS PERFORMED.

	Town.	District.	Total.
1922	398	—	—
1923	817	—	—
1924	19,003	1,788	20,791

An intensive vaccination campaign has been carried out, and, owing to the strong co-operation of the Administrative Department, a large proportion of the inhabitants of the town have received primary or re-vaccination.

The lymph used throughout was supplied by the Director of the Laboratory, and is considered thoroughly active.

SUMMARY OF VACCINATION RESULTS, 1924.

	Jan. May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Total number vaccinated	116	1,134	1,593	4,445	4,127	4,185	2,436	967	19,003
Re-inspected on eighth day	—	969	904	3,552	3,630	3,392	1,589	832	15,268
Number re-inspected on or after the eighth day ..	116	165	673	893	397	793	447	138	3,735
Successful	—	231	446	1,851	2,182	1,767	1,116	365	7,958
Modified	—	106	131	288	137	187	174	70	1,083
Negative	—	632	327	1,413	1,321	1,438	699	397	6,227
Percentage of successful and modified cases out of those re-inspected ..	—	34·7	63·8	60·21	63·60	57·60	64·85	52·28	59·2

Leprosy.

Treatment of cases of leprosy at the Infectious Diseases Hospital by intravenous injections of "Moogrol" was continued throughout the year. 5 c.c. are now given weekly by the intravenous method.

In three cases the disease was considered to have been arrested, and the patients were discharged during January, 1925, work being found for them at the Health Office, where their further progress could be watched, and any recurrence noted early. Two were nodular cases (bacteriologically positive) and one nerve case, not bacteriologically confirmed. (This was the K.A.R. Askari referred to in the 1923 report.)

The conclusion formed after four years continuous treatment by weekly injections of the ethyl esters of Chaulmoogra oil, are that the treatment combined with good food and cleanliness will render an early case bacteriologically negative in about a year. The hopes of arresting advanced cases do not appear good.

LEPROSY SETTLEMENT AT NUNGE.

The conditions are now more satisfactory, and certain improvements and repairs have been affected. A deep pit latrine has been provided. One dresser remains in charge of the Settlement and rations are issued monthly. A large amount of cultivation is done by the inmates.

STATEMENT OF INMATES AT NUNGE LEPROSY SETTLEMENT FOR THE YEAR ENDING 31ST DECEMBER, 1924.

	Remaining, 31/12/23.	Admissions during 1924.	Total.	Discharged.	Absconded.	Died.	Total.	Remaining, 31/12/24.
Male Adults	36	8	44	—	5*a*	5	10	34
,, Children	3	—	3	—	—	—	—	3
Female Adults	35	5	40	—	3*b*	4	7	33
,, Children	3	—	3	—	2	—	2	1
TOTALS	77	13	90	—	10	9	19	71

a—Three of these patients were re-admitted to the Settlement.
b—Two ,, ,, ,, ,,

CLASSIFICATION OF LEPERS NUNGE LEPROSY SETTLEMENT, 31ST DECEMBER, 1924. (Muir's method, see T.D.B. 1924, Vol. 21, No. 11, p. 871.)

Nerve Cases.		Bacteriological Cases.			Unclassified.	Non-Leper.	Total.
(A1)	(A2)	(B1)	(B2)	(B3)			
36	17	6	2	5	4	1	71

Includes all cases showing apparent infection of the skin, apart from mere depigmentation, whether confirmed bacteriologically or not.

Yaws.—344 cases were notified, against 123 during 1923.

Patients appear to be coming in well from the district for treatment at the Sewa Hadji Hospital.

OTHER NOTIFIABLE DISEASES.

The cases of Chicken-pox (12), Influenza (42), Mumps (26), Measles (38), do not call for comment.

OTHER DISEASES CAUSED BY INFECTION.

Two African deaths were certified as due to tetanus.

Six deaths (one Asiatic, five Africans) were certified to be due to the retention of the products of conception or puerperal infection. One African was so notified.

Malaria accounted for ten deaths.

DEFICIENCY DISEASES.

Rickets.—One African death was notified from this cause.

Scurvy.—One African death was certified from this cause.

HELMINTHIC DISEASES.

Ankylostomiasis.—This disease again came second in the list of causes of death. 55 deaths were attributed to the disease, of which 19 were certified.

SEWAGE DISPOSAL.

The reconstruction of the Police Barracks drainage was proceeding at the end of the year.

The water flushed public trough closets at Suliman Street were completed and connected by a new length of sewer to a new septic tank above the foreshore. An incinerator latrine has thereby been abolished, and the system is working well.

Those of similar pattern at the Press and New Market are working well, though it has been found necessary to construct a second absorption pit for the latter, owing to the pores of the ground becoming choked by the enormous quantity of solid fæces passing into the first pit. The second chamber is now absorbing the liquified effluent well, and provision has been made for sub-soil irrigation, should that ever become necessary.

CESSPIT EMPTYING.

An increase of 986 lorry loads of liquid cesspit contents was emptied during the year, with an increase of revenue from this source of Shs. 167-20.

Were it not for the fact that most of the cesspits are at Government buildings, the revenue would be much greater, but the process is offensive and affords scope for mosquito breeding in the cesspits owing to covers being broken and left partially closed. The sooner the cesspits can be replaced by sewerage the better for the comfort of the community.

REFUSE DISPOSAL.

28,164 cart loads of refuse were removed, an increase of 2,963 loads over the number for 1923. The filling of Amani Street Swamp with the resultant ash is proceeding well.

It is hoped that motor transport will be available shortly for the more rapid and efficient removal of house refuse, for which the present ox transport is unsatisfactory.

WATER SUPPLY.

The figures supplied by the Executive Engineer, Public Works Department, and inserted as Table IV, 9 show some progress, but the amount of water available is still inadequate as shown by the 15 applications for connection to the main which had to be refused. It has been calculated that 250,000 gallons per day are necessary for the township ; i.e., 91,250,000 gallons per annum.

A scheme for taking into use the Gerezani stream and filtering it, and chlorinating if necessary, is now under consideration.

The new Railway quarters for Asiatic Staff are supplied from the New Market bore-holes ; the water closets are connected to the mains, but all washing water is drawn from stand pipes in the street, in order to minimize waste and to prevent the porous cesspits from overflowing.

The inadequacy of the water supply for the native population is again emphasized. Many more stand-pipes are required throughout the native town.

It is distressing to watch the crowd of sometimes twenty persons waiting round a single well, of whom perhaps six have dropped their buckets into the well, waiting while sufficient water percolates into the well to fill the buckets.

CLEARANCE OF BUSH.

This is carried on continuously as far as labour permits. No accurate figures are kept to show the acreage cleared.

STATISTICS.

Available figures are given in Table III.

Without any accurate estimate of the population, and without registration of Asiatic and African births, it is impossible to place any reliance on calculated rates.

The importance of frequent census taking with the object of establishing rates of increase from which the population could be estimated with sufficient accuracy in the inter-census periods is again urged.

FOOD SUPPLY.

With the appointment of an additional Sanitary Superintendent possessing the Meat and Food Inspector's certificate of the Royal Sanitary Institute, it has been possible to exercise much closer supervision over the food and milk supply.

The new dried Shark Market was occupied on 1st November and the old buildings are being demolished.

One hundred " lots " of foodstuffs were seized or surrendered and condemned.

Those so condemned since July include :—

Grain and pulses	43 lots
Tinned foods, including :— Sardines Milk Cream Chocolates Herrings Vegetables	10 lots
Meat (from Market)	8 lots
Fresh Fish	1 lot.

Mr. Humphrey states that the average percentage of diseased grains out of ten samples seized was 43·3 %. The lowest number was 22 % and the highest 98 %. The unsound condition of the grain was generally due to weevils.

Forty-seven samples were sent to the laboratory, of which forty were milk. All were satisfactory. The percentage of fat in the milk samples varied from 3·11 to 5·45 %. It was found that the high class vendors supplied milk with the lowest percentage of fat, and it is believed that the proprietor of the poorer class mixes goats' milk with the cows' milk.

Ten shops are now licensed for the sale of milk. Sixteen other persons supply milk direct to customers, or sell in the market.

LICENSED PREMISES.

	Licensed.	Not Licensed.	Total.
Eating Houses	21	0	21
Aerated Water Manufacturers	2	0	2
Ice Cream and Cool drink Manufacturers ..	8	0	8
Milk Sellers	26	0	26
Milk Shops	10	(1 under notice)	11
Cowsheds	3	17	20
Bakeries and Confectioners	14	0	14

Seven persons were prosecuted after warning for selling milk without a licence, one for exposing unsound food for sale, and one for refusing to supply a sample on demand. Eight persons were convicted and one discharged on compassionate grounds.

GOVERNMENT FOOD SUPPLIES.

Samples of food-stuffs submitted to the Central Tender Board were examined and reported on at the six-monthly meetings of the Board, and as becomes necessary from time to time.

MATERNITY AND CHILD WELFARE.

This most useful branch of the work was inaugurated on 27th October, 1924, with the appointment of Miss B. G. Allardes as Sister in charge.

It was decided to erect a model native house in the Native quarter to be used as a Clinic for ante - and post-natal work among the African population and containing two small wards for the accommodation of two in-patients.

This building was under erection at the end of the year. It contains, in addition to the two small wards, an office for the Sister-in-charge and large out-patients treatment room, in addition to the usual out-buildings.

The following duties are also carried out by the Sister at the present time :—

Daily visit to Infectious Diseases Hospital.
Daily visit to Government School excepting Saturdays and Sundays.
Fortnightly visits to K.A.R. Women and Children.
,, ,, ,, Police ,, ,, ,,
Supervision of vaccination of Women and Children.
Home visiting of maternity cases, and school children where necessary.

The Sister reports that the women were shy of interference at first and very careless about disease, especially regarding the babies' eyes.

It is expected that the maternity side of the work will increase very much as soon as the Clinic is opened.

The work of home visiting is much hindered by there being no notification of births.

MEDICAL INSPECTION OF SCHOOL CHILDREN.

This branch demands increasing attention and is of undoubted value to the community.

The attendance at the School has averaged 201·11, and the number of Teachers and Pupil Teachers in residence was 22.

It was found possible to make a card index survey of the physical condition of the children during the year, but an analysis of the results of this survey has not yet been made.

The general condition of the children has improved very much and cleanliness of body and mouth show considerable progress, which reflects great credit on the teaching staff.

The issue of a mid-day meal to necessitous children is a valuable innovation and will no doubt lead to better work in the afternoons.

The appointment of a Nursing Sister to take charge of Maternity and Child Welfare work allowed of frequent visits being paid to the school by this lady and much greater supervision of the dressings and treatment is thereby made possible. The homes of children with scabies have been visited in many cases and an endeavour made to prevent their re-infection in the home after treatment.

BUILDINGS.

It is much to be regretted that the medical work, in common with the educational work, suffers from the extremely unsuitable buildings in which the school is accommodated. These consist of one stone building containing two class rooms for senior students, two long iron buildings accommodating the technical classes (carpentry, weaving, and painting), the head-master's office, medical room and ordinary classes. Several sheds built of Cocoanut leaves house many of the junior classes, and these are not rain-proof.

The boarders are housed in well-built dormitories built of mud and wood in native fashion.

The whole of the medical work is carried out in one room which is also used as a store for garden tools and through which it is necessary to pass in order to reach the Headmaster's office. There is no privacy for examination, and interruptions are constant. The light is insufficient for the examination of a throat. There is no water laid on to the main building and no drainage. The need for adequate accommodation for the satisfactory performance of the medical work was pointed out in connection with the Estimates for 1925-26.

The latrines are on the dry pan and incinerator system, and the foul smoke from the incinerator frequently causes nuisance in the buildings. Water is now available and it is considered that water flushed closets of oriental pattern, draining into a cesspit, should be provided, as much for an object lesson in hygiene to the pupils, as for improvement of the unsatisfactory and potentially dangerous conditions now prevailing.

The diseases treated, as diagnosed by the dresser, are summarized below :—

Ulcers	653
Pain (situation not stated) ..	243
Cough	198
Fever	137
Scabies	137
Ringworm	87
Colic	78
Jiggers	49
Mba (a form of tinea)	34
Boils	26
Constipation	21
Ear-ache	15
Yaws	9
Diarrhœa	5
Impetigo	4
Measles	3
Anæmia	1
Tapeworm	1
Chicken-pox	1
Hordeolum	1
TOTAL	1703

VACCINATIONS.

258 vaccinations were performed with a success rate of 48 % out of those re-inspected on the eighth day.

Admissions to Hospital.—Sixty-two.

Laboratory.—183 specimens were sent to the Laboratory.

Malaria.—Eight children were admitted to hospital suffering from malaria.

An examination of the blood of apparently healthy children was carried out by the Director of the Laboratory; all had normal temperatures but a heavy infestation with malarial parasites was revealed, as below :—

PUPILS.

1924, Month.	Blood Specimens sent.	S.T. Parasites.	S.T.+B.T. Parasites.	B.T. Parasites.	Total Positive.	Percentage Positive.	Microfilaria.	Negative.
September ..	7	3	—	—	3	—	—	4
October ..	92	46	2	3	31	—	1	40
November ..	45	20	—	—	20	—	1	24
December ..	27	14	—	1	15	—	2	10
Total ..	171	83	2	4	89	52·04	4	78
PUPIL TEACHERS—								
(*a*) *Young*—								
October } November } ..	10	9	—	—	9	—	—	1
(*b*) *Adult*—								
November ..	3	3	—	—	3	—	—	—
Total ..	13	12	—	—	12	92	—	1

DENTAL.

Fifty children visited the Dental Surgeon and a number of extractions, fillings and scalings were performed. The Dental Surgeon points out how necessary it is that the children should have a regular dental inspection with probe and mirror, but this is impossible at present. It is hoped that the provision of an additional dental officer may permit of this being done before long and so prevent caries from proceeding to a point when it becomes obvious to the eye. The deposits of tartar which are so frequent in these children and lead to pyorrhœa also demand frequent expert attention.

PORT HEALTH.

Ships Cleared	274
Dhows	814

No cases of infectious disease were found on vessels arriving in the harbour.

The following steamers of the British India Line were in quarantine at Zanzibar, on account of the occurrence of Small-pox during the voyage from Bombay to the coast :—

KAROA, on 29.2.24.	Small-pox in a second class passenger.
KHANDALA, on 12.4.24.	,, ,, a deck passenger.
KARAGOLA, on 11.5.24.	,, ,, ,, ,,
KARAPARA, on 26.5.24.	,, ,, ,, ,,

NEW WORKS.

The list of works required was submitted through the Township Authority in August and mainly recapitulated those which have been asked for in former years.

The need for work in connection with Swamp drainage is again urged.

NATIVE SANITARY INSPECTORS.

Two new probationary Inspectors commenced their training in January and February.

A comprehensive course of training, both theoretical and practical, lasting 11½ months, was carried out for these men in English, and an examination was held in the latter half of December, at which ten out of twelve candidates satisfied the examiners.

The examiners consisted of :—

The Senior Sanitation Officer.
The Deputy Director of Public Works.
The Acting Director of Laboratory.
The Headmaster, Government School.

The following papers were set :—

1. Sanitary Science	3 hours
2. Tropical Hygiene	3 ,,
3. Mixed Paper	2 ,,
4. Practical Report	2 ,,
5. Viva	40 minutes.

The whole ground covered by the course was examined and the results were very satisfactory. Weakness in the English language and in arithmetic are the main difficulties which have to be met, together with the difficulty of obtaining natives who can apply their knowledge.

MUSEUM AND PROPAGANDA.

Some progress has been made in the furnishing of the Museum and great credit is due to Sanitary Superintendents Rowe, Moore and Humphrey for their excellent work in the preparation of exhibits.

Two large size Crayon drawings of Culex and Stegomyia mosquitoes, copied from the coloured illustrations in Byam and Archibald, were made and kindly presented by Mr. H. M. Fisher, Government Dental Surgeon.

A large number of the photographs presented by the Director of the Wellcome Bureau of Scientific Research were mounted and described.

A set of specimens and photographs illustrating the coagulation of cows' and dried milk in the stomach, and the preparation of dried milk were presented by Glaxo Ltd., through their local agents.

A special feature of the Museum is the collection of modern sanitary fittings, and a model inspection chamber, set up for the purpose of showing local contractors and property owners the requirements of modern sanitary practice in the tropics.

It is hoped that when routine duties become less onerous, more attention may be given to the teaching of Hygiene to all members of the community through the various media of newspaper articles, lectures, posters and lantern talks. The native paper "*NAMBO LEO,*" is an excellent medium for this purpose, but it has not hitherto been possible to give the Editor the material assistance which he would welcome.

STORES AND ACCOUNTING.

This branch has been under the charge of Sanitary Superintendent Mackay throughout the year and occupies his whole time. A very great improvement in the methods of store-keeping and accounting is noticeable and great credit is due for the thorough reorganisation which has been affected.

It is hoped that the Sanitation Stores may be handed over to the Medical Storekeeper as soon as possible and so enable the Sanitary Superintendent to undertake other duties more immediately connected with the Health Office.

Summary of sanitation stores despatches (applying to stores for out-stations only; Health Office Stores not included) :—

Packages despatched	458
Items dealt with	674
Articles accounted	21,906

The engagement of an Indian artizan to maintain the wheeled transport and other equipment is much appreciated.

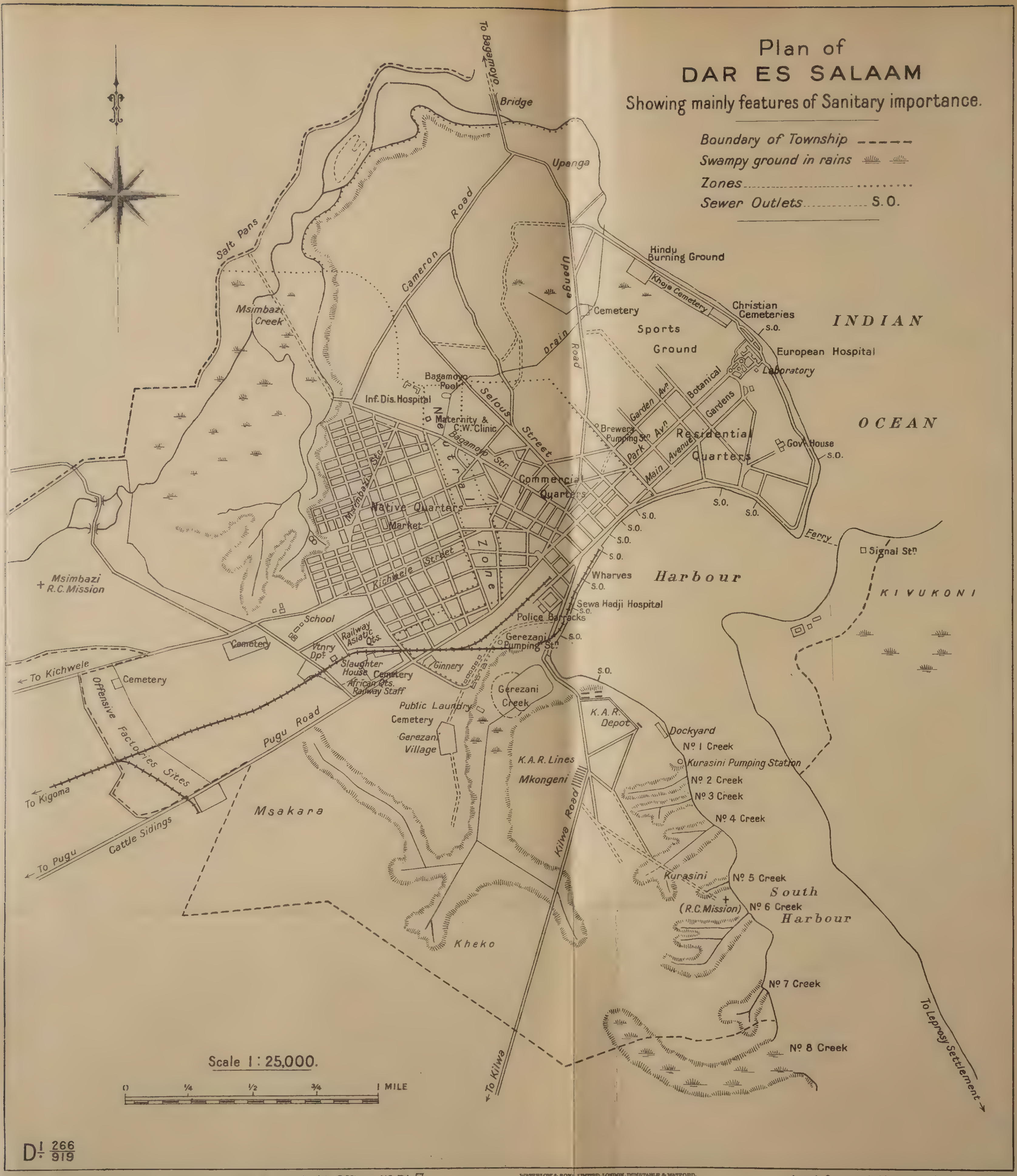
Regular attention to cart wheels is now assured, and the minimum possible delay in the execution of repairs takes place.

TOWNSHIP AUTHORITY.

Ordinary Meetings	49
Extraordinary Meetings	2
Meetings of the District Town Planning and Building Committee ..	10
Number of new files opened (each in respect of new premises) ..	235
Number of Plans approved	66
Number of applications for minor alterations and reconstructions	1,204
Number of applications for construction of privy pits ..	420
Number of building plots issued for native houses	229
Number of notices issued for demolition of dilapidated houses	18
Number of notices for abatement of nuisances (structural)	9
Number of notices served for demolition of small huts erected without permit	23

STAFF.

It is hoped that the appointment of technical and clerical staff during the new financial year, will relieve the Medical Officer of Health of much of the routine work in connection with the Township Authority. (The appointment of a Building Inspector was sanctioned by the Secretary of State in March, 1925.)



Plan of DAR ES SALAAM

Showing mainly features of Sanitary importance.

Boundary of Township - - - - -
Swampy ground in rains
Zones . . . .
Sewer Outlets . . . . S.O.

Scale 1 : 25,000.

D.l $\frac{266}{919}$

Traced by A.C.S.G. & H.M. from a plan supplied by the Health Officer. No. D.l $\frac{57}{114}$

WATERLOW & SONS LIMITED, LONDON, DUNSTABLE & WATFORD.

Land, Survey & Mines Dep.t T.T. 4.4.1925.

LIBRARY
20 [illegible]

EXTENSION OF THE NATIVE QUARTER.

This is proceeding most satisfactorily, 564 new building plots having been issued during 1923 and 1924. The quality of native dwelling house which is being erected is very good on the whole.

Subdivision of the town into building zones was gazetted on 26th September, 1924, in accordance with Rule 49, of Township Rules. This divides the town into three zones, as follows :—

Zone No. I. Residential buildings of European type only may be erected.
Zone No. II. Residential and trading buildings only may be erected.
Zone No. III. Native Quarters may be erected.

Between Zones II and III, there is a space nearly 150 yards wide, and about 55 acres in extent, upon which it is the intention to allow no new buildings. and it is hoped that this will gradually become an open space for recreation and amusement.

GOVERNMENT OFFICIAL'S QUARTERS.

The Government quarters available are insufficient to meet the needs of the number of Officials stationed in Dar-es-Salaam, and a number of these live in hotels, and in rented quarters which are far from comfortable.

It is considered that more houses for junior officials (two-roomed quarters) should be provided to relieve the present congestion.

TREE CUTTING.

The number of trees cut down by the Agricultural Department was 755, mainly mango trees and cocoanut palms. A large number of the latter were situated on plots and roads in the new native quarter, and were removed in order to facilitate building of houses and the passage of traffic.

A committee was appointed, of which the writer was a member, to make recommendations regarding the thinning of the trees in the Botanical gardens and Residential quarter.

The committee reported on 17th October, 1924, recommending extensive thinning of the trees, especially cocoanut palms and mango trees.

TABLE I.—STAFF.

Staff :—

Dr. R. R. Scott, Senior Medical Officer of Health.
Miss B. G. Allardes, Nursing Sister, in charge of Maternity and Child Welfare scheme.
Mr. C. N. Rowe, 1st Grade Sanitary Superintendent.
Mr. W. A. Moore, 1st Grade Sanitary Superintendent.
Mr. J. S. Humphrey, 2nd Grade Sanitary Superintendent.
Mr. W. M. Mackay, 2nd Grade Sanitary Superintendent in charge of Stores and Accounts.
Mr. M. P. Dave, L.C.P.S. (Bombay), Sub-Assistant Surgeon.
Mr. R. K. Mendirath, M.B., B.S. (Bombay), Sub-Assistant Surgeon.
Mr. Saluzinho de Souza, 1st Grade Sanitary Inspector.
Mr. D. A. S. Nanayakkara, 2nd Grade Clerk.
R. G. Kasembe, African Clerk (for Township Authority).
K. H. Rashid, African Clerk.
J. E. Machina, Probationary African Clerk.
12 Native Sanitary Inspectors, of whom two were railway probationers undergoing training.

Principal Changes :—

Mr. C. N. Rowe, Sanitary Superintendent, returned from leave in England on 14th July, 1924, and resumed duty as Sanitary Superintendent *vice* Mr. W. A. Moore, who left on transfer to the lake district on 23rd July, 1924.

Mr. M. P. Dave was transferred to Tabora on 26th March, 1924, and returned on 16th June, 1924.

T. E. Harawa, African Clerk, returned to duty at P.M.O.'s Office on 22nd February, 1924.

New Appointments :—

Mr. J. S. Humphrey, who returned from leave in England, assumed duty on 13th May, 1924.

Miss B. G. Allardes, Nursing Sister, who returned from leave in England on 18th October, 1924, was appointed to initiate Maternity and Child Welfare scheme on 27th October, 1924.

Mr. R. K. Mendirath, M.B., B.S. (Bombay), arrived on 1st appointment, on 21st March, 1924, and took over the duties of Mr. Dave.

K. H. Rashid, African Clerk, assumed duty on 21st February, 1924.

J. E. Machina, appointed as Probationary African Clerk on 1st October, 1924.

Addison Ntukula, appointed as Probationary Native Sanitary Inspector on 23rd January, 1924.

E. R. Muhango, appointed as Probationary Native Sanitary Inspector on 23rd February, 1924.

Obituary :—

Native Sanitary Inspector Samuel Wallace died in Hospital on 16th January, 1924, of cirrhosis of liver.

Termination of Appointment :—

Mr. R. K. Mendireth left for India on termination of appointment on 25th August, 1924.

TABLE II.

FINANCIAL.

Revenue and Expenditure for 1924.

Particulars of Revenue.	Amount.		Total.	
	Shs.	Cts.	Shs.	Cts.
Fees received by Port Office for Bills of Health	2,578	00		
Receipts, Conservancy and Water Rates	2,160	00		
Reimbursements and miscellaneous	202	95		
Sale of Departmental Stores	373	10		
Overpayments recovered, Sanitary Labour	1,390	41		
Railway Fares and Freight (recovery)	12	60		
Fines, Departmental	5	16		
			6,722	22
Total Revenue, Shs.			6,722	22

TABLE II.—*continued.*

Revenue and Expenditure for 1924—*continued.*

Particulars of Expenditure.	Amount.		Total.	
	Shs.	Cts.	Shs.	Cts.
Office and Administration—				
Senior Medical Officer of Health (salary and compensatory allowance)	20,060	00		
Sanitary Superintendents (1 first grade, 2 second grade)	29,040	00		
Native Sanitary Inspectors	9,179	19		
,, ,, ,, Railways	1,078	00		
Asiatic Clerk (2nd grade)	3,420	00		
Native Clerks (three)	3,064	52		
Office Boys (four)	1,318	18		
Artizans (one Indian (10 months), and two Native)	3,113	44		
Yard and Motor Boys	1,712	48		
Night Watchmen (two)	666	45		
Workroom and Museum Attendant	359	00		
Store Boys (two)	530	99	73,542	25
Quarantine and Infectious Diseases Hospital—				
Sub-Assistant Surgeon	4,886	00		
Native Dispenser	1,624	00		
Boat Boys	1,632	12		
I.D.H. Attendants	1,003	26		
I.D.H. Labour	2,262	19		
Rations for Infectious Diseases Hospital	2,919	03		
Vaccinators	510	44	5,691	66
Leper Settlement, Nunge—				
Dresser	440	00		
Rations	6,622	67	7,062	67
Maternity and Child Welfare Clinic—				
Sister in Charge and Health Visitor (two months)	920	00		
Two Rickshaw Boys	129	68	1,049	68
General Duty—				
Temporary Labour (during March)	3,171	90		
Cemetery Boys	1,759	76		
Hedge Cutters	2,307	20	22,685	77
Latrine and Market Sweepers—				
Latrine Sweepers	4,235	46		
Market Sweepers (Administrative Funds)	3,387	74	7,623	20
Refuse Disposal—				
Incinerator Staff	5,286	34		
Ox-cart Boys	11,149	57	16,435	91
Cesspit Emptying—				
Pump Boys	1,324	26		
Cost of two Daimler 2-ton Lorries (approximately)	6,196	00	7,520	26
Road Sweeping—				
Residential Area	3,734	10		
Commercial Area	3,524	99		
Native Quarter	2,972	41	10,231	50
Rat Catching—				
Rat Catchers	1,174	67		
Rat Bait	181	55	1,356	22
Total carried forward			162,344	50

TABLE II.—*continued.*

REVENUE AND EXPENDITURE FOR 1924—*continued.*

Particulars of Expenditure.	Amount.		Total.	
	Shs.	Cts.	Shs.	Cts.
Brought forward			162,344	50
Anti-Mosquito Measures—				
(*a*) Recurrent Expenditure—				
Sanitary Inspector in Charge	6,000	00		
Mosquito Clerks, Finders and Oilers	9,715	89		
Drainers—permanent	22,162	49		
			37,878	38
(*b*) Extraordinary Expenditure—				
Labourers, specially engaged during August and September to fill No. 7 Creek, Kurasini	1,045	51		
Artisan, for maintenance of trolley line (April) ..	60	00		
Labourers, for filling of swamps during March.. ..	5,596	30		
			6,701	81
Uniforms	1,377	67		
			1,377	67
Tree Cutting—				
Permanent allocation to Head Gardener, Agricultural Department	2,220	00		
Special allocation in March	614	80		
			2,834	80
Samples for Analysis	50	84		
			50	84
Transport and Travelling—				
Motor Cycle allowance	753	29		
Cycle allowances (pneumatic)	231	52		
Rickshaw Hire and Wages	197	68		
Travelling allowances	241	99		
			1,423	99
GRAND TOTAL, Shs.			212,611	99

TABLE III.

STATISTICS OF POPULATION FOR THE YEAR 1924.

	Europeans.	Africans.	Asiatics.	Total.
Civilian inhabitants, 1921 Census	555	10,901	4,008	15,464
K.A.R. and Police, not included in above	—	1,422	—	—
Total	555	12,323	4,008	16,886
Number of Births registered during the year—				
1921	11	—	—	11
1922	12	—	—	12
1923	12	—	8	20
1924	19	—	6*	25
(There is no compulsory registration of African and Asiatic births.)			* includes 1 Mauritian.	
Number of Deaths registered during the year—				
1921	7	170	52	229
1922	11	184	44	239
1923	8	237	79	325
1924	8	259	79	346
Number of Immigrants (all nationalities)	—	837	—	—
Number of Emigrants (not recorded)	—	—	—	—
Number of Inhabitants in 1924 (estimated by Senior Commissioner, in his Annual Report)	—	24,000	—	—
Average number of Inhabitants, K.A.R. Lines	Not recorded	962	—	—
Average number of Inhabitants, Police Barracks	—	363	—	—

The above figures are not considered sufficiently reliable to serve as a basis for estimating increase of population or death rates.

TABLE III—*continued.*

TABLE OF DEATHS NOTIFIED.

Classified as Certified when seen by a Medical Practitioner before Death.

Classified as Notified when cause of death ascertained by Inquiry after Death.

DISEASE.	EUROPEAN.		ASIATIC.		AFRICAN.		TOTAL.	
	Certified.	Notified.	Certified.	Notified.	Certified.	Notified.	Certified.	Notified.
Disease caused by Infection—								
Dysentery	—	—	1	—	2	—	3	—
Hyper pyrexia ..	—	—	2	—	—	—	2	—
Malaria	—	—	—	—	1	1	1	1
,, Cerebral ..	1	—	4	—	3	—	8	—
Pneumonia, Broncho ..	1	—	9	3	4	10	14	13
,, Lobar ..	1	—	3	—	—	1	4	1
,, Undifferentiated	—	—	5	1	8	16	13	17
Puerperal Sapræmia ..	—	—	—	—	1	—	1	1
,, Septicæmia. .	—	—	1	—	4	1	5	1
Pyrexia, Uncertain Origin	—	—	2	—	1	32	3	32
Pyogenic Infection ..	—	—	—	—	2	—	2	—
Syhilis, Congenital ..	—	—	—	—	2	—	2	—
Septicæmia	—	—	—	—	—	1	—	1
Tuberculosis, Lungs ..	—	—	3	1	11	9	14	10
Tetanus	—	—	—	—	2	—	2	—
Diseases of the Nervous System—								
Convulsions	—	—	2	2	—	2	2	4
Epilepsy	—	—	1	—	—	—	1	—
Granuloma of Brain ..	—	—	—	—	1	—	1	—
Insanity	—	—	—	—	—	1	—	1
Diseases of the Eye—								
Carcinoma of Eye ..	—	—	—	—	1	—	1	—
Diseases of the Circulatory System—								
Heart Disease	—	—	—	—	—	2	—	2
Syncope	—	—	—	—	—	1	—	1
Diseases of the Blood—								
Anæmia	—	—	—	—	2	—	2	—
,, Pernicious ..	—	—	2	—	—	—	2	—
Fat Embolish	—	—	—	—	1	—	1	—
Diseases of the Respiratory System—								
Asthma	—	—	1	—	—	—	1	—
Bronchitis, Capillary ..	—	—	—	1	—	—	—	1
,, Chronic ..	—	—	3	—	2	18	5	18
Carried forward ..	3	—	39	8	48	95	90	103

TABLE III.—*continued.*

Table of Deaths Notified—*continued.*

Disease.	European.		Asiatic.		African.		Total.	
	Certified.	Notified.	Certified.	Notified.	Certified.	Notified.	Certified.	Notified.
Brought forward . .	3	—	39	8	48	95	90	103
Diseases of the Digestive System—								
Colic	—	—	1	—	—	2	1	2
Cirrhosis of Liver . .	—	—	1	—	1	—	2	—
Diarrhœa	—	—	1	—	—	—	1	—
,, Primary infantile	—	—	1	—	—	—	1	—
Enteritis	—	—	2	—	—	—	2	—
Gastritis	—	—	—	1	—	1	—	2
Hernia, Strangulated . .	—	—	—	—	—	2	—	2
Hepatitis	—	—	1	—	—	—	1	—
Intestinal Obstruction	—	—	—	—	—	5	—	5
,, Perforation	—	—	—	—	—	1	—	1
Rupture of Gastric-ulcer	1	—	—	—	—	—	1	—
Tumour of Liver . .	—	—	—	—	1	—	1	—
Volvulus	—	—	—	—	—	2	—	2
Diseases due to Disorder of Nutrition or of Metabolism—								
Chronic Wasting Disease	—	—	—	—	—	1	—	1
Debility	—	—	—	—	1	—	1	—
Diabetes	—	—	1	—	—	—	1	—
Gout	—	—	—	—	—	1	—	1
Rickets	—	—	—	—	—	1	—	1
Scurvy	—	—	—	—	1	—	1	—
Diseases of the Generative System—								
Diseases of the Male Organs of Generation—								
Elephantiasis of Scrotum	—	—	—	—	1	—	1	—
Ulceration of Penis . .	—	—	—	—	—	1	—	1
Diseases of the Female Organs of Generation and in connection with Pregnancy and Parturition—								
Asphyxia Livida . .	—	—	—	2	—	—	—	2
Delayed Labour . .	—	—	1	—	—	—	1	—
Hæmorrhage as a result of miscarriage	—	—	—	—	—	1	—	1
Premature Birth . .	—	—	4	1	1	2	5	3
Post-partum Hæmorrhage . .	—	—	—	—	—	1	—	1
Still Births	—	—	2	—	—	—	2	—
Tumour Ovarian . .	—		—	—	1	—	1	—
Diseases of the Organs of Locomotion—								
Arthritis, Suppurative	—	—	—	—	1	—	1	—
Cellulitis, Leg	—	—	1	—	—	—	1	—
,, Neck . .	—	—	—	—	1	—	1	—
Malformations	—	—	1	—	—	—	1	—
Carried forward . .	4	—	56	12	57	116	117	128

TABLE III.—*continued.*

TABLE OF DEATHS NOTIFIED.—*continued.*

DISEASE.	EUROPEAN.		ASIATIC.		AFRICAN.		TOTAL.	
	Certified.	Notified.	Certified.	Notified.	Certified.	Notified.	Certified.	Notified.
Brought forward..	4	—	56	12	57	116	117	128
Animal Parasites—								
Nematoda—								
Ankylostomiasis ..	—	—	—	1	19	35	19	36
Old Age and Senile Debility—	—	—	6	1	—	26	6	27
Injuries—								
General—								
Contusions	—	—	—	—	1	—	1	—
Scalds	—	—	1	—	—	—	1	—
Drowning	—	—	—	—	—	2	—	2
Local—								
Fracture of the Skull	—	—	1	—	1	—	2	—
Gunshot Wound ..	1	1	1	—	—	—	2	1
Injury to Chest ..	—	—	—	—	1	—	1	—
Laceration of the Brain	—	—	—	—	1	—	1	—
Poisoning, Fish	2	—	—	—	—	—	2	—
TOTAL	7	1	65	14	80	179	152	194

SUMMARY OF DEATHS.

	Certified.	Notified.	Total.
European	7	1	8
Asiatic	65	14	79
African	80	179	259
TOTAL	152	194	346

TABLE SHOWING INCIDENCE OF DEATHS OCCURRING IN DAR-ES-SALAAM TOWNSHIP DURING 1924.

Month.	European.	Asiatic.	African.	Total.
January	—	6	17	23
February	—	7	26	33
March	3	7	26	36
April	1	7	20	28
May	—	4	16	20
June	—	9	19	28
July	—	6	26	32
August	2	4	23	29
September	—	4	15	19
October	—	8	22	30
November	2	7	29	38
December	—	10	20	30
TOTAL..	8	79	259	346
Mean Monthly Rate	—	6·5	21·5	28·8

TABLE III—*continued.*

Comparative Table of Deaths.

	European.	Asiatic.	African.	Total.
1921	7	52	170	229
1922	11	44	184	239
1923	8	79	237	325
1924	8	79	259	346

Summary of more frequent Causes of Death.

	1923.			1924.		
	Certified.	Notified.	Total.	Certified.	Notified.	Total.
Pneumonia (all varieties) ..	36	19	55	31	31	62
Ankylostomiasis	28	15	43	19	36	55
Malaria	10	24	34	9	1	10
Pyrexia of uncertain origin ..	1	19	20	3	32	35
Old age and natural causes ..	—	22	22	6	27	33
Tuberculosis of lungs	16	3	19	14	10	24
Bronchitis, including undifferentiated chest complaints notified as " Kifua "	—	—	36	5	19	24

TABLE IV.

SUMMARY OF ROUTINE SANITARY WORK DONE DURING THE YEAR 1924 IN DAR-ES-SALAAM.

1. AREA OF TOWNSHIP.

Year.	Approximate Area.	Number of Proclaimed Open Spaces.
1923 . . . . 1924	9·7 square miles . . . . . . This includes the harbour, amounting possibly to a quarter of the total: the exact area of land within the Township is not available.	None proclaimed. The space intended to be left clear between the Native and Commercial quarters measures 55 acres. This space is occasionally referred to as the "neutral zone."

2. POPULATION (Civilian only).

Year.	Number of Natives (Asiatics and Africans).			Number of Europeans (including Americans).		
	Males.	Females.	Total.	Males.	Females.	Total.
1921	8,097	6,818	14,915	408	147	555
1922	—	—	—	—	—	—
1923	—	—	—	—	—	—
1924	—	—	*See* Table III.		—	—

3. HOUSING.

Table compiled from figures received from the Administrative Office.

Year.	Number occupied by Europeans.	Number occupied by Natives (Asiatics and Africans).
Number of Houses—		
1922	43	622
1923	55	530
1924	57	536
Number of Huts—		
1922	—	1,975
1923	—	2,180
1924	—	2,263

A census of houses was undertaken by the Native Sanitary Inspectors, for the purpose of ascertaining the number of houses in each Inspector's district. For this purpose the town was divided into five main subdivisions, I, II, III, IVa and IVb (subdivided into town and K.A.R. areas).

No. I comprises mainly the Residential quarter.

Nos. II and III contain most of the Commercial area, and a large amount of private land and small holdings, very sparsely inhabited.

Nos. IVa and IVb contain almost the whole of the native quarter, and the K.A.R. cantonment.

The figures are not absolutely accurate, but are sufficiently reliable to indicate the disposition of the houses in the Township.

TABLE IV.—*continued.*

A house of European type includes houses of substantial appearance, built mainly of stone ; it does not indicate that it possesses modern sanitation, or is occupied by Europeans. It also includes the concrete and iron buildings of the K.A.R. A house of native type includes all houses built mainly of mud and wattle, and includes the ordinary Indian shop.

CENSUS OF HOUSES BY NATIVE SANITARY INSPECTORS.

District No.	Houses of European Type.	Houses of Native Type.	Total.
I.	106	—	106
II.	88	276	364
III.	77	478	555
IVa.	147	1,606	1,753
IVb. Town	144	435	579
K.A.R.	40	64	104
	602	2,859	3,461

4. ERECTION OF NEW BUILDINGS DURING THE YEAR 1924.

	1923.		1924.	
	No.	Action taken.	No.	Action taken.
Number of buildings erected without sanction ..	32	Notices served, and Township Authority's instructions complied with.	3	Prosecuted and convicted.
Number of Native huts erected without sanction	3	Demolished by order of Township Authority.	23	Notices served, and all demolished.

NOTE.—Four new Government residences completed during the year.

5. LATRINES.

	Males.		Females.	
	Number.	Number of Seats.	Number.	Number of Seats.
1. Number of Public Latrines—				
Water carriage	4	30	3	7
Incineration	12	52	3	4
Total at end of 1923	16	82	6	11
2. Number of Public Latrines erected during the year 1924—				
Water carriage	1	3	—	—
Incineration	—	—	—	—
Total at end of 1924	17	85	6	11

TABLE IV—*continued.*

3. Number of private latrines on dry-pan system, with incineration maintained by Health Office for Government buildings only .. .. One.

	1922.	1923.	1924.
4. Average number of pails of night-soil removed daily ..	—	Not counted.	Not counted.
5. Average number of soiled pans removed and clean pails substituted	—	Pans are removed, cleaned and replaced at once.	Pans are removed, cleaned and replaced at once.
6. Number of night-soil men employed to clean latrines and remove excreta	—	15	12
7. Number of cesspools, including soakage pits	2,158	Not counted.	Not counted.
Number of cesspools cleansed (*a*) Private buildings ..	Not recorded.	Not recorded.	22
(*b*) Government buildings	"	"	34
8. Number of loads of cess removed	2,472	2,192	3,178
9. Number of new cesspools constructed during the year ..	Not recorded.	Not recorded.	Not recorded.
10. Number of old cesspools abolished	"	"	"
11. Number of new privy pits for which permits were issued	271	453	420

6. Removal of Refuse.

	1922.	1923.	1924.
1. (*a*) Number of dustbins (Government bins) in use	—	194	222
(*b*) Number of " new " bins (Government bins) issued during year	—	—	119
2. Number of carts at work daily to remove refuse from streets ..	—	—	3
3. Amount of street refuse removed daily	Not recorded separately.		
4. Number of carts at work daily removing refuse from yards and premises	14	14	17
5. Amount of refuse removed daily from yards and premises ..	74	69	77
Total Cartloads	27,180	25,201	28,164
6. Number of men employed for moving domestic refuse—			
Ox-cart boys	—	40	42
Incinerator boys	—	15	16

TABLE IV—*continued.*

7. MODE OF DISPOSAL OF EXCRETA, REFUSE AND OFFAL.

	Daily average number of pails of excreta.			Daily average number of cartloads refuse.			Daily average number of slaughter-house and market offal.		
	1922	1923	1924	1922	1923	1924	1922	1923	1924
Buried or trenched	None.			None.			Slaughter-house offal removed by Veterinary Department and buried. Market offal included with domestic refuse and burned.		
Burnt	Not counted.			74·4	69·8	77·1			
Thrown into sea..	None.			None.					
Otherwise dealt with	None.			None.					

8. AVERAGE DAILY NUMBER OF CARTLOADS OF TINS, CANS, BOTTLES, BROKEN CROCKERY AND OTHER INCOMBUSTIBLE MATERIAL REMOVED FROM HOUSES AND COMPOUNDS.

1922.	1923.	1924.

Cartloads not counted separately: all refuse passed through incinerators before picking over. Resultant ashes and incombustible material used for filling depressions.

9. WATER SUPPLY.

Nature of Supply.	1922.	1923.	1924.
I. *Pipe-borne Water* (from information supplied by Executive Engineer)—			
From Boreholes—			
1. Number of boreholes in operation at end of year.. ..	—	—	14
2. Number of new boreholes sunk during year	—	—	4
3. Additional water mains laid during year—			
(1) Garden Avenue	—	—	—
(2) Extension of Burton Street..	—	—	—
4. Number of buildings on main	—	—	145
. Number of buildings supplied by water-cart (14 of these 37 are on borehole water with higher salinity than that from Gerezani)	—	—	37
6. Number of buildings connected to main during the year, including 4 transferred from Brewery to Gerezani main	—	—	15
7. Number of applications for connection which had to be refused	—	—	15
8. Number of standpipes for sale of water	5	6	9
9. Number of gallons of water supplied from mains ..	—	—	24, 284, 154
10. Number of gallons sold by meter	—	—	6, 316, 320
11. Price of water sold—			
(*a*) To consumers on flat rate per month	—	—	Shs. 6 to 10
(*b*) To consumers on meter, per 1,000 gallons	—	—	Shs. 5.
(*c*) To consumers at standpipes per 4-gallon tin (in pence)	0·48	0·24	0·24

TABLE IV—*continued.*

WATER SUPPLY—*continued.*

Nature of Supply.	1922.	1923.	1924.
II. *Wells*—			
1. Public, excluding mosque wells	7	7	7
Number with pumps, and protected against surface water and mosquito breeding—			
(*a*) Completely	—	—	—
(*b*) Partially protected against surface water	All.	All.	All.
2. Private—			
Number in use in 1921, 295	Not recorded.	Not recorded.	238
Number disused in 1921, 52	,,	,,	95
Number protected against surface water and mosquito breeding	,,	,,	Not recorded.
Number uncovered or improperly covered	,,	,,	,,
III. *Tanks* (fixed receptacles for the storage of water)—			
1. Public (elevated water towers)—			
(*a*) Water supply	—	11	—
(*b*) Fire storage tanks	—	8	—
(All are protected against mosquito breeding)			
2. Private	Not recorded.	Not recorded.	Not recorded.
IV. Nature of tanks and number of barrels in buildings	,,	,,	,,

10. DRAINAGE.

Nature of Drainage.	Public.	Private.
Masonry Drains (sewers and piped drains not included)—		
Lineal yards of masonry drains—		
1922	4,951*	Not recorded.
1923	4,951*	,, ,,
1924	7,621	,, ,,
Lineal yards reconstructed during the year—		
1922	None.	,, ,,
1923	,,	,, ,,
1924	†	,, ,,
Lineal yards of new drains constructed during the year—		
1922	2,670	,, ,,
1923	None.	,, ,,
1924	None.	,, ,,
Earth Drains or Ditches—		
Number of lineal yards of ditches cleaned, including clearing of masonry drains and including regrading and repairing—		
1922 (371 miles) .. Yards	642,882	,, ,,
1923 (441 ,,) .. ,,	776,151	,, ,,
1924 (426 ,,) .. ,,	751,294	,, ,,
Number of lineal yards of ditches dug and graded, *i.e.*, newly dug—		
1922	2,299	,, ,,
1923	4,991	,, ,,
1924	3,839	,, ,,
Average frequency clearing ditches of grass—		
1922 (22 miles) .. about every	3·0 weeks	—
1923 (22 ,,) .. ,, ,,	2·48 ,,	—
1924 (23·2 ,,) .. ,, ,,	2·8 ,,	—

* Figures given in Reports for 1922 and 1923 are incomplete.

† Culvert at Upanga Road repaired.

TABLE IV—*continued.*

II. INSPECTIONS AND PROSECUTIONS.

	1922.	1923.	1924.
Number of Inspectors employed—			
Native Sanitary Inspectors	9·0	9·0	10·6
Mosquito finders	28·7	26·1	24·5
Number of houses inspected	—	111,004	110,867
Number of houses wherein larvæ were found	See analysis of sources of larvæ.		
Number of notices served to remove conditions causing breeding of mosquitoes	12	210	227
Number of persons fined for having mosquito larvæ on premises	—	10	18
Number of notices served to remove insanitary conditions on premises	—	57	110
Latrine nuisances (native) .. 55	—	—	110
To provide mosquito-proof covers for wells and soakage pits .. 31			
Insanitary premises .. 21			
Cleansing notices (houses) after infectious diseases .. 3			
Number of persons fined for not removing insanitary conditions after notice	—	Nil.	19
Number of soda and aerated water factories inspected	1	2	2

TABLE V.

METEOROLOGICAL RETURN FOR THE YEAR 1924.

(Rainfall recorded at Health Office.)

	Total Fall.	Number of days on which Rain fell.
	Inches.	
(German records—average of 19 years)	42·60	—
1919	34·06	77
1920	24·63	83
1921	33·90	82
1922	34·08	102
1923	25·65	129
1924	28·94	114

RAINFALL RECORDED ON GAUGE AT HEALTH OFFICE, ACACIA AVENUE, 1924.

	Amount in inches.	Highest fall on one day.	Number of days on which rain fell.	Total fallen at end of month.
January	0·490	0·34	10	0·49
February	4·902	1·49	14	5·392
March	3·170	0·90	13	8·562
April	8·090	1·66	18	16·652
May	3·795	1·40	9	20·447
June	2·865	0·84	10	23·312
July	1·090	0·43	5	24·402
August	0·410	0·29	5	24·812
September	1·540	0·71	8	26·352
October	0·265	0·15	7	26·617
November	0·740	0·38	7	27·357
December	1·590	0·83	8	28·947
	28·947	1·66	114	

For other meteorological records see Report of Director of Laboratory.

TABLE VI.

INFECTIOUS DISEASES HOSPITAL, DAR-ES-SALAAM.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1924.

Diseases.	Remaining from 1923.	Number of Patients admitted during 1924.	Total number Treated during the year 1924.	Number of Deaths.	Remarks.
Chicken-pox	—	12	12	—	
Leprosy	6	13	19	—	Three transferred to Leper Settlement, Nunge
Mumps	—	23	23	—	
Measles	—	24	24	—	
Tuberculosis, Lungs	—	20	20	6	Diagnosis of two cases not being confirmed bacteriologically, changed to Debility and Bronchitis.
Under observation	1	2	3	—	Diagnosis changed to Malaria and duly confirmed by the Laboratory. One case, admitted as Mumps, not confirmed.
TOTAL	7	94	101	6	

Out of 94 newly admitted during the year, five patients escaped during the night, two of these being lepers. One of the two lepers was subsequently caught breaking into the Hospital at night, and was sentenced to three months' imprisonment.

REPORT ON THE HEALTH OF TANGA FOR THE YEAR 1924, BY DR. R. NIXON, M.B., CH.B., D.T.M., D.P.H., MEDICAL OFFICER OF HEALTH, TANGA.

The records for the year show an improvement in European health, an absence of small-pox throughout the district for the first time since the occupation, a decrease of malaria among all sections of the community.

The new infectious diseases hospital, and the new incinerators have been brought into use during the year, and the main storm water drains of the town have been repaired or reconstructed. The main defect within the township is the inadequate water supply, particularly in the native area.

In the subdistricts little medical supervision has been possible, the hookworm is prevalent in every direction, and the native deaths still exceed the births.

VITAL STATISTICS.

Europeans :—

The births, deaths and cases of sickness during the last two years, are :—

	1923.	1924.
Births	5	7
Deaths	7	5
Sickness	302	214

Of the five deaths during the year, three occurred in Tanga Hospital, and two at Magila Mission, Muheza. Of the three in Tanga, two were due to trauma, and one to malaria, the last an imported case from Kihuhwi. The deaths at Magila were due to general septicæmia, and to heat-stroke.

The European cases of infective disease were :—

	1923.	1924.
Malaria	55	34
Influenza	6	15
Dysentry	3	1

No ankylostomiasis, schistosomiasis, yaws, gonorrhœa, pneumonia or tuberculosis were recorded in Europeans.

Non-Europeans :—

The following table is based on the akidas' returns. Both births and deaths are certainly understated, but the factors of error are probably much the same during each year.

	Births.	Deaths.	Birth-rate.	Death-rate.
1921 (7 months only)	582	928	11·6	18·8
1922	965	1335	11·1	15·4
1923	1047	1274	12·1	14·7
1924	963	1144	11·2	13·3

The table indicates a stationary native birth-rate, and a steadily falling death-rate. The returns are, however, so unreliable that no conclusion from them can be accepted with confidence.

The Tanga Hospital Non-European Sickness returns are as follows :—

	1923.	1924.
Cases of sickness ..	10,754	9,553
Deaths	97	101

The more important causes of sickness were :—

	1923.		1924.	
	Cases.	Deaths.	Cases.	Deaths.
Ulcers	1,539	7	1,147	5
Hookworm	1,546	41	1,365	50
Malaria	1,151	0	762	0
Yaws	302	1	409	0
Syphilis	133	0	162	2
Gonorrhœa	116	0	142	0
Tuberculosis	44	5	37	8
Pneumonia	54	6	65	8
Dysentry	19	2	12	0
Bilharzia	114	0	107	0
Small-pox	12	1	0	0

No plague, cholera, sleeping sickness, tetanus, enteric or leprosy were treated.

MOSQUITOES, ANTI-MOSQUITO WORK AND MALARIA.

Two important structural anti-mosquito measures have been dealt with during 1924 :—

School Street Drain.—This is a masonry drain, about half a mile in length, and with a channel about 4½ by 2½ feet. It conveys storm water from Ngamiani and from the east and centre of the European town into the railway cutting. Near its outfall the roof caved in, presumably some years ago, and only a thin trickle of water could find its way through the obstruction. The caved-in masonry and earth were cleared from the channel in July. About 20,000 gallons of stagnant water were released, which contained at a conservative estimate, about two million mosquito larvæ. The channel was kept clear and in September the Public Works Department repaired, and in parts reconstructed the drain.

Side drains of Wharf Line.—These drains, which run through the centre of the town and receive a large volume of storm water, were filled with old iron, broken and choked. Mosquito larvæ were found in them in large numbers. They are now in course of reconstruction by the District Engineer, and the new masonry drain will provide an unbroken flow without pockets and backwaters for mosquito breeding.

The following are comparative figures of the routine anti-mosquito measures :—

Number of Inspections :—

	1923.	1924.
Premises	47,593	65,667
Drains	4,244	14,365
Pits	35,232	70,656
Pools	296	507
Wells	3,245	8,378
Tanks and barrels	36,216	115,724

It will be seen that the work has roughly been doubled. This is due to an increase in the anti-mosquito staff, and in the area supervised, the native town now being regularly included.

The collections of mosquito larvæ found are :—

1921	258
1922	440
1923	2,486
1924	3,664

Mosquitoes.

The collections of the larvæ found during the year consists of :—

Culex	58 %
Stegomyia	38 %
Anopheles	2 %
Megarhininæ	2 %

The predominant Culex, is Culex fatigans, and the Stegomyia, Stegomyia fasciata. In Tanga, the Stegomyia is rarely seen in the houses, 98 % of the house-infesting mosquitoes being Culex. During 1924, the Culex curve has been, with slight exceptions, directly proportional to the rainfall. The Stegomyia curve has been independent of the rainfall.

Mosquitoes and Coconut Palms.—As anti-mosquito work increases in Tanga, it becomes more difficult to accept in its entirety the indictment of the coconut palm. Dr. Haworth, after exhaustive work on the subject, concluded that the large majority of Tanga palms contained mosquito-larvæ in their tops during every month of the year. There are facts in Tanga difficult to reconcile with this conclusion. The buildings with the most palms in their immediate vicinity are not the buildings most heavily infested with mosquitoes. Again, the mosquitoes in the Tanga houses during the last four months have been few, and the breeding places found on ground level account adequately for them. We have many thousands of coconut-palms in Tanga, but the number of house mosquitoes during these four months has been incompatible with the thousands of active and uncontrolled breeding places. My own climbers have been unable to find larvæ in the palm-tops, except after rain, and then in 11 % only of the palms examined. Our seasonal mosquito " plague " has always been co-incident with the heavy rains, and it seems probable that accumulations of rainwater in defective drains and pits, in pools, holes, tins, coconut-shells and other ground breeding-places, has played a greater part than the tops of palms. An intensive campaign on ground level during the rains of 1925 may shed more light on the subject.

ANTI-MOSQUITO WORKS REQUIRED.

There are two prolific sources of mosquitoes in Tanga, which should be dealt with structurally :—

(1) *Ngamani Wells.*—Until the wells in the native town are repaired, or an alternative water supply provided, it is impracticable to prohibit the digging of shallow surface wells in the native compounds. These surface wells have provided 15 % of our collections of larvæ during the last four months, and almost all the collections have been very large.

(2) *Kisosora Springs and Swamps.*—A drainage scheme is necessary which will deal with the spring water throughout the year, and prevent the extensive flooding of the old rice fields after heavy rain. 51 of our 73 collections of Anopheline larvæ were taken in this area. The proposal to adopt the springs as the foundation of a pipe-borne water supply for the town will not obviate the annual flooding of this area.

MALARIA IN TANGA.

The following figures show the malaria incidence of the last two years :—

	1923.	1924.
European cases	55	34
Non-European cases ..	1151	762
Total cases	1206	796

The majority of the European cases of 1924 were infected outside the township, chiefly on the section of this railway between Mombo and Korogwe, which is heavily infested with Anophelines.

A useful control is provided by the Tanga School dispensary figures. 93 attacks of malaria occurred among 300 schoolboys during the year.

TANGA SMALL-POX.

The following is the small-pox record of Tanga district for the last five years :—

	1920.	1921.	1922.	1923.	1924.
Cases ..	1,823	412	82	81	0
Deaths ..	752	136	14	16	0

11,926 vaccinations were performed during this year. Of 2,782 re-inspected, there were 49 % successful, 27 % modified and 24 % failures.

ANKYLOSTOMIASIS IN TANGA.

The hookworm is the chief cause of native sickness and deaths in this area. The hospital return, the school return, and the akidas' returns provide some evidence of the extent of its incidence.

The hospital return shows 1,365 native cases (i.e. 14 % of all native cases), and 50 deaths (50 % of all native deaths).

The school return shows 54 cases among 300 boys, but it is noteworthy that 34 % of all the scholars have varying degrees of anæmia. The majority of the schoolboys being resident within the township, these figures are not a reliable index of the prevalence of the disease in the sub-districts.

I give a brief extract only of the akidas' returns, as their diagnosis and figures generally are not reliable.

	1921.	1922.	1923.	1924.
Number of deaths attributed to hookworm	444	284	189	241
Death-rate from hookworm per 1,000 living	5·2	3·3	2·2	2·8
Percentage of total deaths ascribed to hookworm	28	21	15	21

It is probable that hookworm is at least a contributing factor in half the native deaths of the district. At the present time mass treatment at Tanga would be expensive and of little value, for the return of the patients to their homes would mean early re-infection of most of them. Educational propaganda and the improvement of latrine accommodation are necessary, and both are dependent on regular medical supervision of the out-districts.

MEDICAL SUPERVISION OF THE SUB-DISTRICTS.

All the sub-districts, except Amani, have been visited by the Medical Officer of Health, but only at long intervals and for short periods. The main difficulty in regular inspection, is the lack of any motor transport. At the present time an inspection of shamba labour conditions throughout the district—supervision of which is obviously urgently needed—would involve the risk of a relapse of Tanga township conditions. It is, I think, a sounder policy to try to consolidate what we have gained, and to extend from it than to attempt, with a small staff and no transport, to control too large an area. The towns on the railway, such as Mombo and Korogwe, can be inspected, and technical advice given to the Administrative Officer. Any attempt to control the districts many miles from the railway is, I think, inadvisable until motor transport is acquired.

CONSERVANCY.

The new incinerators in School Street and in Ngamiani were brought into use in January and are working well. The following are comparative figures :—

	1922.	1923.	1924.
Cart loads of refuse removed ..	14,171	17,052	22,794
Dumps of rubbish removed ..	30	250	711

The products of incineration have been used to fill in Hospital Swamp, Mission Street ravine and Wasambaa ravine.

GRASS CUTTING AND DRAIN CLEARING.

The following are comparative figures :—

	1922.	1923.	1924.
Square yards of grass cutting	2,689,000	1,475,000	3,473,000
Linear feet of drains cleared	1,034,000	553,000	2,550,000
Linear feet of new drains cut	6,500	11,400	15,200

PORT HEALTH WORK.

154 ships and 930 dhows were cleared during the year.

No infectious disease entered the town through the port.

OTHER MISCELLANEOUS WORK.

Meetings of Township Authority	25
Permits to build huts	158
Permits to repair houses or huts	253
Notices to demolish huts	49
Trees cut (120 cocoanuts	144
Notices to remove insanitary conditions	268
Prosecutions	33
Convictions	31
Animals inspected	5,020
Carcases condemned	3
Portions of carcases condemned	808
Other foodstuffs condemned	114
Burials performed	95
Trains inspected	246
Rats caught	106

The three new bungalows for European Officials were occupied in January, 1924.

Premises were rented by the Housing Committee in September, which include a better Health Office, and better quarters for the European Sanitary Superintendents.

ARBORICULTURE.

No systematic tree-planting has been carried out in Tanga since the occupation. Many of the trees in the township are now degenerated, unsightly and dangerous. The trees in Tanga are far too numerous, and removal is the solution for most of the old mangoes and acacias. On the other hand, the appearance and comfort of the town would suffer if certain avenues of trees in the main streets were removed. A replanting scheme is desirable, particularly for about half-a-mile of King Street. Staff cannot be spared from this department to carry out such a work, which can more properly be done by the Forestry or Agricultural departments.

INFECTIOUS DISEASES HOSPITAL.

The old German laundry, after reconstruction by the P.W.D., was opened as an infectious diseases hospital in January, 1924. It is an excellent stone building in a convenient site at Kisosora, and will accommodate about 30 patients. Owing to the absence of infectious disease, only four patients have been admitted during the year. It is proposed to admit acute cases of yaws and tuberculosis in 1925.

CONVALESCENT CAMP.

The Tanga hospital is occasionally overcrowded owing to shamba labourers from the out-districts having to be admitted as in-patients, although suffering from ulcers or other mild lesions. It is hoped in 1925 to establish a convalescent camp near the hospital for such cases. It may be possible to run such a camp on contributions from the employers whose labour is being treated there.

LEPER SETTLEMENT.

The Senior Commissioner reports as follows on the leper settlement at Mkuzi :—

Number of admissions during 1924	22
,, ,, discharges ,, ,, ...	3
,, ,, desertions ,, ,, ...	0
,, ,, deaths ,, ,, ...	6
,, remaining at end of year	13

TANGA METEOROLOGY.

The comparative rainfall of the last four years is :—

1921	50·52 inches.
1922	53·08 ,,
1923	43·79 ,,
1924	45·53 ,,

The maximum monthly rainfall was 11·80 inches during April, and the maximum daily rainfall of the year was 4·09 inches on April 26th.

The maximum temperature recorded during 1924 was 89·9 F. on April 1st, and the minimum 74·1 F. on September 27th. The mean temperature of the year was 80·7 F. as compared with 80·8 F. in 1923.

The following are the monthly records of 1924 :—

	Rainfall in inches.	Temperature.		
		Maximum.	Minimum.	Mean.
January	3·80	86·7	77·1	82·7
February	9·33	87·9	78·8	83·8
March	·95	88·1	81·3	84·9
April	11·80	89·9	78·2	82·7
May	5·12	84·5	77·0	80·9
June	4·35	81·3	74·6	78·1
July	1·11	81·6	74·4	77·1
August	1·61	83·4	74·8	78·1
September	3·14	82·2	74·1	78·1
October	·41	86·5	75·5	80·0
November	2·27	84·9	77·3	81·3
December	1·64	86·7	78·8	83·1

APPENDIX A.

REPORT ON THE HEALTH OF THE CHILDREN ATTENDING TANGA SCHOOL FOR THE YEAR 1924.

The general physique of the children has shown a marked improvement during the year as a result of supervision, discipline and organised drill and games. The cleanliness is as a rule good, but has suffered during the last few months owing to the breakdown of the school water supply. The school possesses a dispensary, which is well equipped, and a small hospital, both under the daily supervision of the M.O.H. The following is a list of the cases under treatment during the year :—

Ulcers (mainly of the feet and secondary to scratches, cuts, jiggers, etc.)	468
Cuts and bruises	132
Injuries to muscles, tendons, bones, etc.	91
Lesions of eyes (mainly conjunctivitis)	51
Lesions of ears	13
Lesions of teeth	12
Respiratory diseases (mainly cases of mild bronchitis and catarrh, but includes six cases of pneumonia)	282
Tonsilitis	70
Lymphadenitis	54
Scabies	134
Other skin diseases	33
Digestive disturbances	108
Ankylostomiasis	54
Schistosomiasis	27
Filariasis	15
Yaws	12
Gonorrhœa	11
Malaria	93
Small-pox 0, Mumps 2, Measles 1, Chickenpox 1	4
Others	47
Total	1,711

The total at first sight appears disproportionately large for a school of 300, but it will be seen that the bulk of the cases consist of minor sepsis, coughs and colds, diarrhœas and scabies. The policy adopted is to encourage the children to attend with minor ailments, owing to the tendency of small ulcers to become large and chronic if untreated in the early stages, and of other conditions to get beyond easy control.

One death only is reported during the year, due to septic meningitis secondary to a head injury.

The malaria rate is low, an average of eight cases per month being treated.

The ankylostomiasis figures indicate that this disease is becoming less within the township. It remains, however, a very serious problem in the sub-districts.

The bulk of the schistosomiasis cases occurred in March, and the bathing pools were treated. Only two cases have occurred during the last six months.

The scabies cases show a steady decrease during term times, and a large and rapid increase during each holiday. The number of scabies cases makes the water deficiency particularly regrettable.

It should be noted that only new cases and the more serious of the old ones attend the dispensary during school hours. Redressings, etc., are attended to before the school opens.

INSPECTION OF SCHOOL CHILDREN.

A routine examination of 182 of the children has been made during the last few months. The following are the more outstanding results.

Nutrition.—Good in 150 cases, fair in 30, very poor in 2.

Skin Conditions.—49 had skin infections. These include 23 of scabies, 10 of jiggers, and 8 of impetigo.

Teeth.—33 boys had one or more decayed teeth, and 5 had minor malformations of jaws or teeth. The other 144 had no serious irregularities or decay. This extremely satisfactory condition is, in part, probably due to the regular teeth-brushing enforced at the school.

Throats.—45 boys had enlarged tonsils or adenoids or both. 15 had minor inflammatory conditions.

Eyes and Ears.—Two boys had external eye disease, and two had otorrhœa.

Hearts.—Eight boys had valvular disease of the heart.

Blood.—61 boys had varying degrees of anæmia. The heavy infestation of the district with hookworm is probably one of the main responsible factors.

Glands.—91 boys had enlarged femoral or inguinal glands or both. The main factor is undoubtedly the enormous incidence of ulcers of the feet.

Other Defects.—

Knock-knee	14
Flat-foot	8
Varicocele	8
Hydrocele	2
Missing fingers or toes	5
Hernia	3
Paresis of muscles	3
Scoliosis	2
Tubercular adenitis	2
Tubercular dactylitis	1
Parotitis	2
Mastoiditis	1
Yaws	5
Syphilis	1

CONCLUSIONS AND SUGGESTIONS.

The school must have a regular and adequate water supply. It is very doubtful if the existing well, even with a new pump installed, can regularly supply sufficient water. I think it would prove more satisfactory to connect the school by pipeline with the railway supply, which is within about 400 yards.

The position as regards malaria, hookworm and other infections is fairly satisfactory. All the boys have been vaccinated. There has been no small-pox.

The chief cause of sickness is lesions of the feet. Further care of jiggers, cuts, scratches, etc., must be enforced.

Scabies reaches epidemic proportions during the holidays. The clean habits learnt at school must be maintained as far as possible in the home.

There is a real demand in the country for skilled or semi-skilled native dressers. There are three boys in training at present, but the need justifies increasing this number to twelve. I hope it may be possible to do this next year, but the difficulty lies in finding the teaching staff. It must come from the medical department, which is already fully employed.

TABLE I.

STAFF.

European.

Dr. R. Nixon – Medical Officer of Health.
Mr. W. H. Jones – Sanitary Superintendent.
Mr. B. T. Bailey – Sanitary Superintendent.

Native.

One Clerk.
Three Sanitary Inspectors.
Two Vaccinators.

TABLE II.

Included in general Financial Statement of the Department on page 11.

TABLE III.

RETURN OF STATISTICS OF POPULATION FOR THE YEAR.

	Europeans.	Africans.	Asiatics.
Number of inhabitants in 1924	255	86,604	2,447
Number of Births during the year 1924	7	963	0
Number of Deaths during the year 1924	5	1,144	30
Immigrants during the year 1924	90	—	—
Emigrants during the year 1924	80	—	—
Number of inhabitants in 1925	267	*86,423	2,447
Increase of inhabitants in 1925	12	—	—
Decrease of inhabitants in 1925	—	181	—

* The estimate of the Senior Commissioner is 105,000 – 110,000 but is not founded on the census returns.

TABLE IV. (2).

POPULATION : TANGA TOWNSHIP.

Year.	Number of Natives.		Number of Europeans.		Totals.
	Males.	Females.	Males.	Females.	
1924	9,000	7,300	170	33	16,503

All the figures on this page are rough estimates, founded on little evidence. The European births and deaths of 1924 are true. The other figures are unreliable. There are no records of Asiatic births, or of emigrants and immigrants of the district. The Senior Commissioner's estimate of 111,000 population is founded on the payment of 40,000 taxes.

(3) HOUSING.

	Number occupied by Europeans.	Number occupied by Natives.
1922	46	9
1923	63	9
1924	68	9

Number of Huts :—

1922	1,750
1923	1,840
1924	2,049

(4) ERECTION OF NEW BUILDINGS DURING THE YEAR.

Number of houses built without sanction	1922	Nil
	1923	Nil
	1924	Nil
Number of huts built without sanction	1922	350
	1923	200
	1924	90

Action taken.—All huts built without permission, actually situated in the village of Ngamiani, i.e., in thoroughfares, out of alignment, etc., have been removed by demolition, by the occupiers, and built elsewhere with permission. A large number of huts are still existing in the bush on the outskirts of the village. These cannot be removed or demolished until the Survey Department lay down boundary stones to mark out the roads, etc. No prosecutions were undertaken.

(5) LATRINES.

	For Males.		For Females.		Remarks.
	No.	No. of seats.	No.	No. of seats.	
Number of Public Latrines :—					
1922	6	—	Nil.	—	Choo-pans only used.
1923	6	—	Nil.	—	—
1924	5*	—	Nil.	—	* 1 demolished 1924.
Number of Public Latrines erected during the Year :—					
1922	Nil.	—	—	—	
1923	Nil.	—	—	—	
1924	Nil.	—	—	—	

The Railway have five Asiatic latrines (choo-pans) on a mile stretch of ground between the Station and Loco Shed. Two of these are used by other than Railway employees.

NUMBER OF PRIVATE LATRINES.

	1922.	1923.	1924.
Average number of pails of night soil removed daily	2	2	3
Average number of soiled pails removed and clean pails substituted	4	7	8
Average number of night soil men employed to clean latines and remove excreta	3	4	6
Number of cess-pools	1,380	1,850	2,600
Number cess-pools cleansed	—	—	—
Number of new cess-pools constructed during the year	427	96	169
Number of old cess-pools abolished	380	94	115
Daily average number of pails removed from public latrines	2	4	6

EXPLANATORY NOTES.

102 private latrines, 84 are W.C.'s, eight are drums.

The number 102 includes three hotels with several W.C.'s each.

Pails of Night Soil Removed.—Refers only to the 18 private latrines mentioned above.

Cess-pools abolished.—Principally filled in, sealed up and others dug to replace.

Pails of Night Soil Removed.—Means five-gallon urine drums, which are used for this purpose.

(6) REMOVAL OF REFUSE.

	1922.	1923.	1924.
Number of Dustbins	10	15	24
Number of carts at work daily to remove refuse from streets	4	5	3
Amount of refuse removed daily	17	23	31
Number of carts at work daily to remove from yard and premises	6	8	6
Amount of refuse removed daily from yards and premises	24	34	45

NOTES.

During 1922 and 1923 50 % of the carts were out of action for repairs. Two were condemned by Board of Survey in August, 1923, and four in April, 1924.

(7) MODE OF DISPOSING OF EXCRETA, REFUSE AND OFFAL.

	Daily average number of pails of excreta.			Daily average number of cartloads of Refuse.			Daily average number of cartloads of Slaughterhouse and Market Offal.		
	1922	1923	1924	1922	1923	1924	1922	1923	1924
Buried or trenched	—	—	—	—	—	—	—	—	—
Burnt	—	—	2	41	57	76	—	—	—
Thrown into sea	4	6	7	—	—	—	1	1	1
Otherwise dealt with	—	—	—	—	—	—	—	—	—

NOTES.

Excreta commenced to be burnt in the new incinerator during the last quarter of 1924. None is now thrown into sea or otherwise disposed of except slaughter-house offal.

TABLE IV. (8)

Included in Table above.

(9) WATER SUPPLY.

	1922	1923	1924
Pipe-borne Water :—			
Source	Nil.	Nil.	Nil.
Number of Standpipes along Roads	Nil.	Nil.	Nil.
Number of Standpipes in Compounds and Houses	Nil.	Nil.	Nil.
Wells :—			
Public :—			
Number	20	20	20
Number with pumps protected against surface water, and mosquito protected	Nil.	Nil.	Nil.
Private :—			
Number	31	31	32
Number protected against surface water and mosquito protected	Nil.	Nil.	Nil.
Tanks :—			
Public :—			
Number mosquito protected and served by pumps ..	—	—	—
Number above ground	—	—	—
Number mosquito protected	—	—	—
Private	39	40	45
Number mosquito protected	34	35	45
Number above ground	33	34	44

(9) WATER SUPPLY—*continued.*

	1922	1923	1924
Nature of Tanks :—			
Wood	—	—	—
Iron	38	39	44
Concrete	1	1	1
Barrels :—			
Number	156	151	164
Number mosquito protected	Nil.	Nil.	Nil.

Barrels does not include 5-gallon drums and similar receptacles.

Wells Private.—Does not include approximately 200 shallow wells in the native area, which have been dug in private compounds owing to the inadequacy of the public wells.

(10) DRAINAGE.

	Public.	Private.
Masonry Drains :—		
Lineal yards of masonry :—		
1922	8,000	300
1923	8,000	350
1924	8,200	550
Lineal yards reconstructed during the year :—		
1922	Nil.	Nil.
1923	Nil.	30
1924	Nil.	75
Lineal yards repaired during the year :—		
1922	Nil.	Nil.
1923	Nil.	20
1924	250	45
Lineal yards of new drains constructed in the year :—		
1922	Nil.	Nil.
1923	Nil.	Nil.
1924	300	Nil.
Earth Drain or Ditches :—		
Number of lineal yards of ditches :—		
1922	1,934,050	Nil.
1923	552,680	Nil.
1924	2,550,239	Nil.
Number of lineal yards of ditches dug and graded :—		
1922	6,500	Nil.
1923	11,360	Nil.
1924	15,230	Nil.
Average frequency clearing ditches of grass :—		
1922	Weekly.	
1923	Fortnightly.	
1924	Weekly.	

(11) INSPECTIONS AND PROSECUTIONS.

	1922	1923	1924
Number of Inspectors employed	3	3	3
Number of Houses inspected	37,691	64,415	74,963
Number of Houses where Larvæ were found	732	1,637	2,021
Notices served to remove conditions causing the breeding of Larvæ	94	27	68
Number of persons fined for having mosquito larvæ on their premises	7	15	31
Number of notices to remove insanitary conditions on premises	311	71	200
Number of persons fined for not removing insanitary conditions after notices	11	6	Nil.
Number of Soda and Aerated Water Factories inspected	2	4	5

SUMMARY OF ROUTINE SANITARY WORK DONE DURING THE YEAR IN THE TOWNS OF LINDI, IRINGA, KIGOMA, DODOMA, AND KILWA.

Total approximate area, 25 square miles. Total number of proclaimed open spaces, six.

(2) TOTAL POPULATION.

Number of Europeans.		Number of Natives.		Total.
Males.	Females.	Males.	Females.	
195	55	11,461	12,637	24,348

(2) HOUSING.

	Number occupied by Europeans.	Number occupied by Natives.
Number of Houses	76	2,949
Number of Huts		2,271

(4) ERECTION OF NEW BUILDINGS DURING THE YEAR.

Number of houses built without sanction	Nil
Number of huts built without sanction	Nil

Action Taken.—

	Huts.	Houses.
Number of prosecutions	Nil.	Nil

(5) LATRINES.

	For Males.		For Females.	
	Number	Number of Seats.	Number	Number of Seats.
Number of Public Latrines	41	169	27	118
Number of new public latrines erected during the year	6	26	6	16

*Number of private latrines	224
Average number of pails of night-soil removed daily	169
Average number of soiled pails removed and clean pails substituted	297
Number of night-soil men employed to clean latrines, and remove excreta	22
Number of cess-pools	33
Number of cess-pools cleansed	1
Number of new cess-pools constructed during the year	2
Number of old cess-pools abolished	—

* Does not include the deep pit latrines which are provided for nearly all native houses or huts.

(6) REMOVAL OF REFUSE.

Number of dustbins	822
Number of carts at work daily to remove refuse from streets	4
Amount of refuse removed daily (cart loads)	17
Number of carts at work daily to remove refuse from yards and premises	6
Amount of refuse removed daily from yards and premises (cart loads)	18½
Number of men employed for moving refuse	14

In some of the towns no distinction is made between carts used to remove refuse from streets, and carts for removal of refuse from yards and premises.

(7) MODE OF DISPOSAL OF EXCRETA, REFUSE AND OFFAL.

	Daily average number of Pails of Excreta.	Daily average number of Cartloads of Refuse.	Daily average number of Cartloads of Slaughter-House and Market Offal.
Burned or Trenched	—	—	—
Burnt	235	40	2¾
Thrown into Sea	—	—	—

(8) AVERAGE DAILY NUMBER OF CART-LOADS OF TIN CANS, BOTTLES, BROKEN CROCKERY AND OTHER INCOMBUSTIBLE MATERIAL REMOVED FROM HOUSES, HUTS AND COMPOUNDS.

Two.

(9) WATER SUPPLY.

Pipe-borne.—

Source (river, lake or spring)—Spring.

Number of stand-pipes along roads	2
Number of stand-pipes in Compounds and Houses	54

Wells.—

Public.—

Number	14
Number with pumps protected against surface water and mosquito protected	1

Private.—

Number	111
Number protected against surface water and mosquito protected..	1

Tanks.—

Public.—

Number mosquito protected, and served by pumps	1
Number above ground	9
Number mosquito protected	6
Private	67
Number mosquito protected	10
Number above ground	13
Number mosquito protected	3

Nature of Tanks.—

Iron	94
Concrete	2

(10) DRAINAGE.

Nature of drainage.	Public.	Private.
Masonry drains.—		
Lineal yards of masonry drains	12,880	1,250
Lineal yards reconstructed during the year	500	—
Lineal yards repaired during the year	1,000	—
Lineal yards of new drains constructed during the year	500	—
Earth drains or ditches.—		
Number of lineal yards of ditches cleaned	27,364	120
Number of lineal yards of ditches dug and graded	200	—
Average frequency clearing ditches of grass	once a month.	

(11) INSPECTIONS AND PROSECUTIONS.

Number of Inspectors employed	4
Number of houses inspected	10,710
Number of houses where larvæ were found	168
Number of notices served to remove conditions causing the breeding of larvæ	32
Number of persons fined for having mosquito larvæ on premises	5
Number of notices served to remove insanitary conditions on premises	96
Number of persons fined for not removing insanitary conditions after notice	—
Number of Soda and Aerated Water Factories inspected	8

RECOMMENDATIONS FOR FUTURE WORK.

Water supplies.—A plentiful pure water supply is a necessity if the health of the population is to be satisfactory. It may not be feasible in the near future to provide each Township in the Territory with a pipe borne supply, but the possible sources of pure water for each important town should be examined, and where necessary protected from contamination, and an estimate made of the expenditure required. The provision of sufficient properly constructed standpipes would diminish the amount of water stored in tins and jars in the bazaars and native quarters, and so reduce the most prolific breeding places of stegomyia mosquitoes.

Surface drainage, Roads and Swamps.—The number and extent of the earth drains in the Townships is a constant source of trouble and expense. A tropical downpour of rain will do as much damage in an hour as a large gang of men can repair in many days. Constant supervision is necessary to see that hollows are not being formed in which mosquitoes can breed. Properly constructed masonry drains would be an economy. Many of the coast towns are low lying, and the swamps semi-tidal. The removal of surface water and the treatment of the swamps are questions which should be dealt with by the Sanitary Engineer, should such an appointment be approved. In many of the townships the roads, especially in the native quarters, are badly in need of repair, this causes considerable inconvenience and delay in collecting household refuse. The use of permeable cess-pits has, as a rule, been satisfactory as a temporary measure, and, where pipe-borne water supply is available, causes no serious risk to the health of the inhabitants. The water table at Dar-es-Salaam is near the surface, and as the soil surrounding the cess-pits becomes water-logged, more frequent emptying will be necessary. The removal of the concrete covers often results in damage to the sides and corners, and great care is necessary to prevent the cess-pits becoming mosquito breeding places. The provision of a proper sewerage system for the whole of the business and residential area will have to be considered in the near future.

Public and School Latrines.—The replacement of pan and incinerator latrines by automatic water flushed oriental pattern latrines should be proceeded with as soon as possible, a commencement has been made, but the shortage of water at Dar-es-Salaam gives rise to difficulty.

Registration of Births and Deaths.—The necessity for this has been pointed out in previous annual reports, and becomes more apparent each year. Any vital statistics prepared at present are quite unreliable.

Rural Sanitation.—With the present staff it is quite impossible to supervise the sanitation of the villages. Even were considerable numbers of native sanitary inspectors available, European supervision would still be necessary in order to obtain any permanent benefit. The ideal system would be to have native sanitary inspectors in charge of groups of villages with European Sanitary Superintendents provided with motor transport as inspecting officers of areas, these inspecting officers being in turn responsible to a Medical Officer of Health in charge of the whole district. Should the increased staff asked for in the estimates be sanctioned and appointed, an attempt will be made during the year to improve the sanitary conditions of the villages in the ankylostoma infested area round Tanga. A selected group of villages should be provided with proper latrine accommodation built under the supervision of a European Sanitary Superintendent, and the inhabitants subsequently subjected to mass treatment with Carbon Tetra-chloride by a Medical Officer appointed for this purpose. Should an experiment of this nature result in an improvement in the general health of the community so great as to be obvious to themselves and their neighbours ; then there should be little difficulty in extending the campaign to larger areas.

Tsetse Fly.—In the section of this report which dealt with Human Trypanosomiasis, attention has been drawn to the necessity for further investigations into the question of the distribution of infected tsetse flies. The new foci of infection discovered during 1924 provide an additional argument to the many brought forward in previous annual reports in favour of the appointment of a Medical Entomologist or Biologist on to the staff of the Medical Department.

APPENDIX IV.

In despatch No. 392, dated July 12th, 1924, from the Secretary of State, the following recommendation was made. " As regards the suggestion that coconut palms should be cut down, the Committee recommend that further experiments should be made to ascertain the value of this measure, especially with a view to determining whether the mosquitoes bred in trees of any height or only in the lower trees."

In August, the Principal Medical Officer outlined an experiment to be carried out by the staff of the Health Office at Dar-es-Salaam. Briefly stated, this was to provide artificial breeding places situated at varying heights on the trunks of cocoanut palms standing in different sections of the town.

The report submitted by Dr. R. R. Scott, the Senior Medical Officer of Health, Dar-es-Salaam, was submitted to the Secretary of State under cover of despatch No. 162 of 14/3/25, but is reproduced here as being of general interest.

" The Hon'ble the Principal Medical Officer,
Dar-es-Salaam.

" Sir,

" With reference to your 39/2/52 of 26/8/24, I have the honour to submit the results of the investigation which you outlined therein and which has been carried out between 1st October and 31st December, 1924.

" 2.—Ten coconut palms were selected in various parts of the Residential and Commercial quarters. These were labelled A – J, and their positions marked approximately on the plan appended. Cleaned cigarette tins (capacity 275 c.c.s.)

punched with a single hole near the upper rim were then affixed to each tree by hanging upon nails, the lowest nail placed fifteen feet from the ground, and other nails at intervals of five feet up to the crown of the tree. The trees selected varied in height from 45 to 75 feet.

"3.—The tins were filled with tap water carried to the trees in bottles and placed in position. They were examined twice weekly by two climbers, a skilled native mosquito finder standing at the bottom of the tree and examining the water in the tins, and recording the results. The water in the tins was changed and rusty tins replaced by new ones.

"4.—The crowns of the trees were examined after the first week of the experiment by the method described in Dr. Haworth's report, the senior climber having been instructed in the method by Dr. Haworth's climber before Dr. Haworth left Dar-es-Salaam.

"5.—The tins were numbered 1–13, according to their height from the ground, thus :—

Tin No.	Height from the ground in feet.
1.	15
2.	20
3.	25
4.	30
5.	35
6.	40
7.	45
8.	50
9.	55
10.	60
11.	65
12.	70
13.	75

"6.—6·7 % of the tins were found dry on inspection. But out of the total of 162 tins found dry during the experiment, no less than 57 were so found on 29th December, an interval of seven days having elapsed since the previous inspection, owing to the Christmas holidays ; giving a percentage of 35·1 of the total found dry having occurred on one day. Therefore, excluding the 99 tins examined on 29/12/24, 105 tins were found dry out of 2,314 tins examined during the bi-weekly period of examination, giving a percentage found dry of 4·5 only.

"7.—The following table gives the necessary information regarding distribution of the tins, times of examination, and drying of the water in the tins :—

Palm.	Height in feet.	Number of Tins.	Situation.	Number of times examined.			Total examinations.	Total Tins examined.	Number of Tins found dry.			Total.	Percentage of Tins found dry.
				Oct.	Nov.	Dec.			Oct. Rainfall. ·265″.	Nov. Rainfall. ·74″.	Dec. Rainfall. 1·59″.		
A.	50	8	Main Avenue	9	8	8	25	200	2	1	7	10	5
B.	50	8	Between Main and Park Avenue	9	8	8	25	200	2	2	5	9	4·5
C.	45	7	Between Magogoni Street and Azania Front.	9	8	8	25	175	8	1	4	13	7·4
D.	73	12	Between Magogoni Street and Azania Front.	10	8	8	26	312	18	6	12	36	11·5
E.	74	12	Park Road	9	7	8	24	288	10	4	6	20	6·9
F.	65	11	Park Road	9	7	8	24	264	8	3	5	16	6
G.	57	9	Botanical Gardens	10	7	8	25	225	4	2	9	15	6·6
H.	66	11	Botanical Gardens	10	7	8	25	275	5	5	6	16	5·7
I.	75	12	Ring Street and Sulimen Street	9	6	8	23	276	5	3	5	13	4·7
J.	60	9	Ring Street and Sulimen Street	8	7	7	22	198	1	1	12	14	7·0
—	—	99	—	92	73	79	244	2,413	63	28	71	162	6·7

" 8.—No mosquito larvæ were produced either from the crowns of the palms or from the tins affixed to the trees in the presence of the skilled mosquito finder, or of any member of the supervisory staff.

" But during the temporary absence of the skilled finder through sickness on the morning of 22nd December, a single full grown stegomyia larvæ was brought in by the climber in tin No. 6, from Palm A, this tin being suspended at a height of forty feet from the ground.

" I regarded the circumstances as so suspicious as to prevent me from accepting the climber's statement, taking into consideration the following facts :—

1.—Absence of the watcher.

2.—Single finding of a larvæ out of 2,251 tins containing water examined (2,413 less 162 found dry).

3.—The larva being single and almost full grown, although the tin was inspected on the 22nd December, four days previously. The larva pupated, and a female stegomyia, apparently aedes argenteus, hatched out on 27th December.

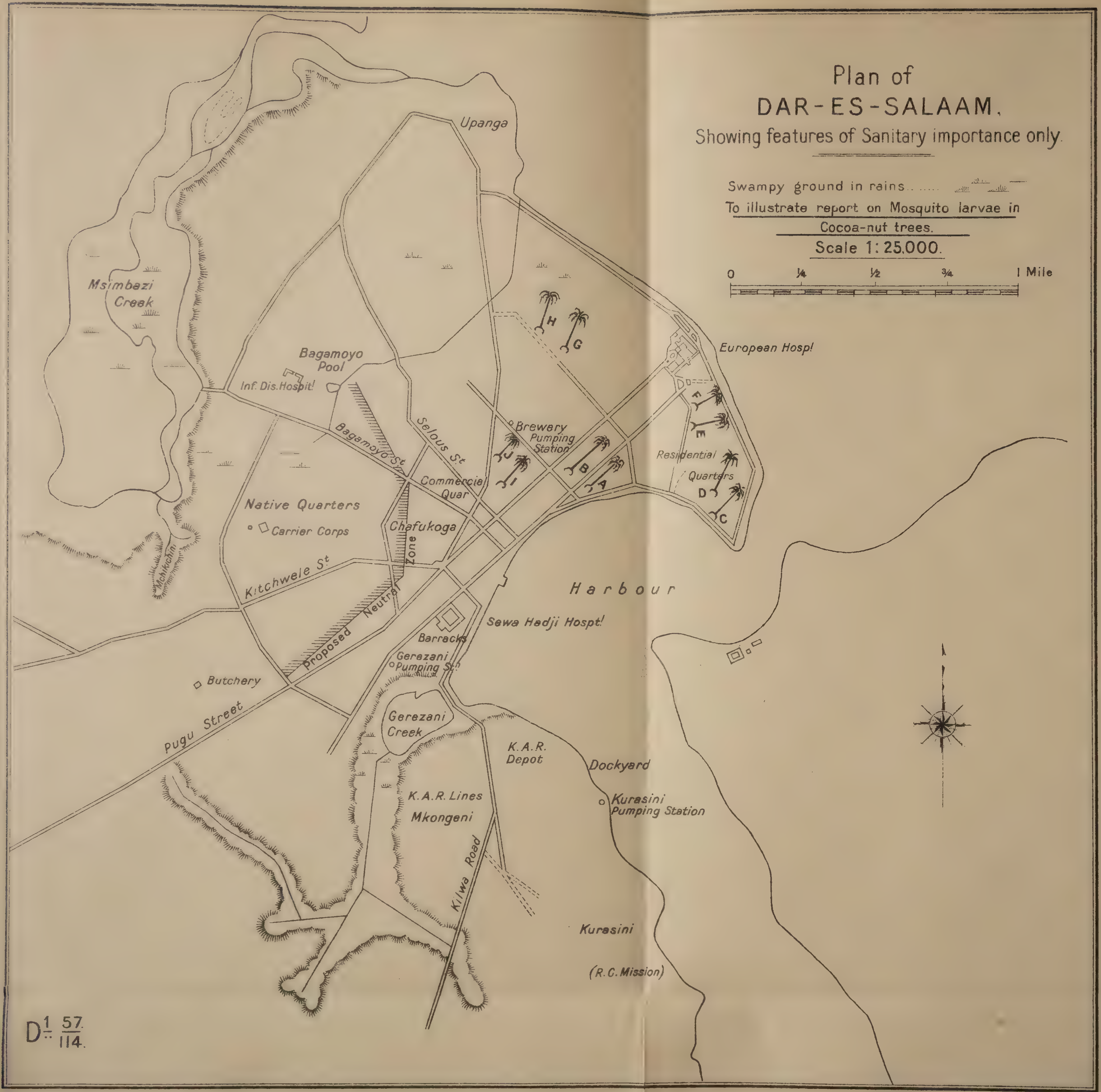
" 9.—The crowns of all the ten palms to which tins were affixed, were examined after the 8th October, by Dr. Haworth's method, and twenty-four additional palms in various parts of the town also had their crowns examined regularly during the period, all with negative results for mosquito larvæ.

	Height.	Average No. of times Crown examined.
10 Palms (with tins)	45 - 75	22
10 ,, (without tins)	48 - 75	.. 20·3
14 ,, ,, ,,	not recorded	

" 10.—During the period of the experiment, three collections of Culex larvæ and nineteen collections of Stegomyia larvæ were found in tins in the township. The plan attached shows the proximity of some of the collections to the trees to which the tins were affixed.

" 11.—I therefore have to report that in my opinion the experiment has produced an entirely negative result.

I have the honour to be,
Sir,
Your obedient servant,
sd. R. R. SCOTT,
SENIOR MEDICAL OFFICER OF HEALTH."



Plan of
DAR-ES-SALAAM,
Showing features of Sanitary importance only.

Swampy ground in rains.. .....

To illustrate report on Mosquito larvae in Cocoa-nut trees.

Scale 1: 25,000.

D $\frac{1}{\because}$ $\frac{57.}{114.}$

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TANGANYIKA TERRITORY.

REPORT OF THE DAR-ES-SALAAM LABORATORY FOR THE YEAR 1924,

By A. R. Lester, M.B., B.S., F.R.F.P.S., D.P.H., D.T.M. & H.

A. Introductory.

The period, January to December, 1924, inclusive, which represents the fourth completed year's work of the laboratory, is dealt with in the following report. Routine work has been greatly augmented; an appreciation possibly of the assistance afforded the clinician and surgeon by the facilities a laboratory diagnosis offers.

Unavoidable changes in the staff, and the uncertainty of tenure of office for any definite term in consequence, have effectually scotched any attempt at original inquiry introducing the personal element and requiring protracted and concentrated attention.

1. *Staff.*—For a few days at the commencement of the year Dr. Haworth controlled the laboratory, Dr. G. G. Butler taking over and remaining in charge till the end of March, when changes in the Head Office necessitated a rearrangement of staff, and the services of the latter were requisitioned as Deputy to the Principal Medical Officer. I was posted to the laboratory in March, and continued in this department to the end of the year.

Mr. W. A. Irvine, who fully maintained the reputation for ability and aptitude expressed of him in a previous report, carried on the duties of Laboratory Assistant till the return from leave of Mr. Hammond, in May. The latter has ably continued and the work has proceeded smoothly and efficiently. Mr. Hammond, as a result of his sojourn at the Tropical School of Medicine and other centres in London, has acquired a knowledge of several side lines which he has already put to practical use in the laboratory.

No changes are to be reported in the native staff. Each has been allotted duties to which he has been accustomed and trained since German times, and this arrangement appears eminently satisfactory.

(*b*) While not on the laboratory staff, one or two European Medical Officers and one or two European Officers of other departments specially interested and an Asiatic Sub-Assistant Surgeon took advantage of a short stay in headquarters, to refresh their memories on the subject of bacteriology, and were given every facility to do so.

A couple of demonstrations to members of the Royal East African Commission and Native Sanitary Inspectors were arranged.

2. *Buildings.*—No alterations or new constructions have been undertaken yet. Plans for extensions have been submitted and, I understand, approved. The necessity for expansion is more pronounced than before and while not yet acute, is liable to become so at no distant date. A few petty repairs have been made, mainly with a view to rendering the animal houses rat-proof and simplifying their thorough cleansing.

3. *Equipment.*—Several small pieces of apparatus have been received during the year. These include a staining rack for dealing with slides in numbers, a Cambridge Rocking Microtome, and a Pointolite Oblique Illuminator for dark ground work.

Ice is still purchased locally and kept in refrigerators, which besides being too small for our growing needs, are becoming the worse for wear. An electrically worked refrigerator has been indented for and we anticipate it will be an economy despite the initial cost.

4. *Library.*—With two or three changes, the periodicals received are much the same as in former years. Subscriptions to three foreign medical periodicals have lapsed. Three others have been substituted, two British and one American. The journals now received fairly regularly are :—

1. Annals of Tropical Medicine.
2. British Journal of Experimental Pathology.
3. Bulletin of Entomological Research.
4. Indian Journal of Medical Research.
5. Indian Medical Gazette.
6. Journal of the American Medical Association.
7. Journal of Bacteriology.
8. Journal of Experimental Medicine.
9. Journal of Hygiene.
10. Journal of Infectious Diseases.
11. Journal of Pathology and Bacteriology.
12. Medical Science : Abstracts and Reviews.
13. Parasitology.
14. Proceedings of the Royal Society.
15. Quarterly Journal of Medicine.
16. Review of Applied Entomology.
17. Tropical Diseases Bulletin.

The following books form useful additions to a library to which frequent reference has to be made in several branches of science :—

1. Beverages and their Adulteration – Wiley.
2. Biochemistry – Moore.
3. Dysentery in the Federated Malay States – Fletcher & Jepps.
4. Food and Drugs – Greenish.
5. Foods and their Adulteration – Wiley.
6. Laboratory Companion – Johnson.
7. Lyon's Medical Jurisprudence for India – Waddell.
8. Manual of Chemistry - Luff & Candy.
9. Manual of Physics - Candy.
10. Treatment of Malaria - Fletcher.

5. *Experimental Animals.*—The animals kept by the establishment for experimental and other purposes are calves, guinea pigs, monkeys, sheep, and brown and white rats.

(*a*) *Calves* are obtained through the Veterinary Department and are examined by them before dispatch to us. They have yielded a fair proportion of anti-variolous lymph and have not suffered any casualties in the process.

(*b*) Sheep are kept in a pen behind the calf stalls, and their erythrocytes are used periodically in the Bordet-Gengou reaction. One or two of the young have died from one cause and another during the year. Those in excess of our requirements have been disposed of as usual to the Veterinary Department.

(*c*) *Monkeys.*—As heretofore, these have been obtained from the Administrative Officer through the " Jumbes " of villages outlying the town. No more than six at a time have been kept on the premises. They are used solely to maintain the potency of the lymph vaccine prepared in this establishment ; the transference of seed from calf to monkey being effected from week to week.

(*d*) *Guinea pigs.*—These have on the whole kept well, but have again not bred fast enough to keep pace with our requirements in " Complement." Weakness of complement apparently inherent in guinea pigs in the tropics and not greatly improved by a more liberal diet, has necessitated the killing of two or more of these animals fortnightly, depending on the number of Wassermann's to be performed and their numbers have by reason of this toll, been considerably reduced. Except where unavoidable, adult males are taken for their complement and this considerably restricts one's choice.

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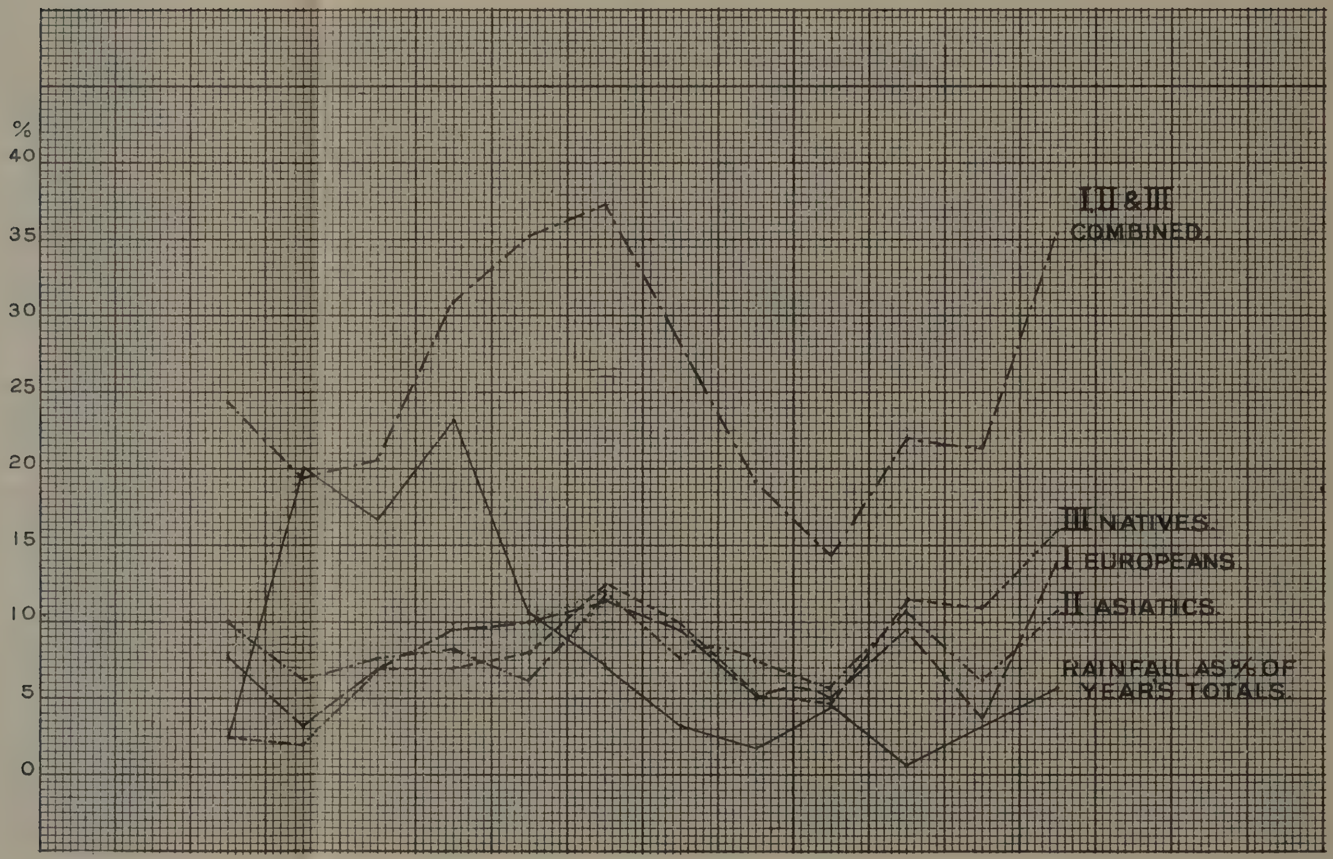
1924.

JAN. FEB. MAR. APR. MAY JUN. JUL. AUG. SEP. OCT. NOV. DEC.

FROM BLOOD SLIDES

MONTHLY DISTRIBUTION OF MALARIA IN % OF YEAR'S TOTAL
FOR EACH RACE SEPARATELY & ALL COMBINED.



A few were added to the group we have from the Veterinary Laboratory at Mpapua. The two groups were let loose into the same run, as much to accelerate breeding as to prevent "in-breeding." Those from Mpapua appeared to be the hardier animals and friction between the tribes, led to a few casualties among the old stock.

Rats.—Rattus rattus are procured, when required for biological tests, from the Health Department.

(*e*) *White rats* were secured, through the courtesy of the Veterinary Department, from their laboratory at Mpapua, in the last quarter of the year and they have bred prolifically. One or two litters were devoured by the parent animals. They were afflicted on arrival with Cordylobia larvæ and on removal of these have thrived.

6. *Revenue.*—This is derived from the sale of calf lymph, sheep, and analysis of milk, water, etc., and fees for Wassermann tests. The revenue has materially decreased since the Zanzibar Government discontinued their demand for vaccine lymph in September, this having been the main source of income.

B. GENERAL EXAMINATIONS.

I. *Blood* :—

(1) *Blood Films.*—Thick films are examined as a matter of routine, and thin films, where a differential leucocyte count is requested. A total of 3,939 blood films have been examined during the year, showing an increase over last year's total of 770. A total of 184 blood films forwarded by the Senior Medical Officer of Health, of normal persons attending the Government School, will be dealt with separately.

The blood films were received from the following sources :—

European Hospital	602
Sewa Hadji Hospital	3,251
Other Medical Officers	51
Outstations	35

(*a*) *Blood Parasites in Europeans* :—602 slides were examined with the results detailed below :—

Subtertian malaria parasites	150
Benign tertian malaria parasites	5
Spirillum duttoni	13
Negative	434

(*b*) *Blood parasites in Asiatics.*—1,186 was the total examined.

Subtertian malaria parasites	383
Benign tertian malaria parasites	29
Crescents ,, ,,	6
Spirillum duttoni	17
Microfilaria	17
Negative	734

(*c*) *Blood parasites in Natives.*—These include cases from the 6th Battalion King's African Rifles and the Police and Prisons. 2,116 blood films were examined.

Subtertian malaria parasites	471
Benign tertian malaria parasites	7
Crescents	12
Spirillum duttoni	34
Microfilaria	125
Negative	1,467

Stating these results as percentages of the total number of blood slides of all races and of the total of individual races, we have the following as being indicative of the approximate distribution of malaria in the township of Dar-es-Salaam.

Nationalities.	Jan.	Feb.	Mar.	Apl.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Europeans ..	7·7	3·2	7·0	9·6	10·3	12·9	9·6	5·1	5·1	10·3	3·8	14·8
Asiatics ..	10·0	6·7	7·6	8·1	6·2	12·2	7·6	7·6	5·7	10·8	6·2	10·5
Natives ..	2·4	2·0	6·9	7·3	8·6	12·7	10·4	5·3	4·7	11·6	11·4	16·1
All Races ..	24·2	19·6	20·8	30·7	35·1	37·3	28·6	19·3	14·5	22·0	21·7	35·5

184 blood films of normal school children and teachers were forwarded by the Senior Medical Officer of Health in continuation of an enquiry commenced a year or two before. The results of examination are illuminating and instructive and exemplify the difficulties in the eradication of malaria. These results are set out in tabular form below:—

Year and Period.	Number of Blood Slides received.	S.T. Parasites.	S.T. & B.T. Parasites.	B.T. Parasites.	Total Positive.	Per Cent. Positive.
Pupils— September to December, 1924	171	83	2	4	89	52·04
Pupil Teachers— October and November, 1924	13	12	—	—	12	92·00

From the above table it would appear that more than half the subjects, chosen at random, in the Government school harbour malaria parasites, and that these latter are in the peripheral circulation.

These results moreover lay wide the potentialities in a prophylactic campaign against the scourge of malaria.

(*d*) *Relapsing* (*Tick*) *Fever.*—64 slides of this disease have been dealt with, an increase of 11 over last year. These are distributed as under :—

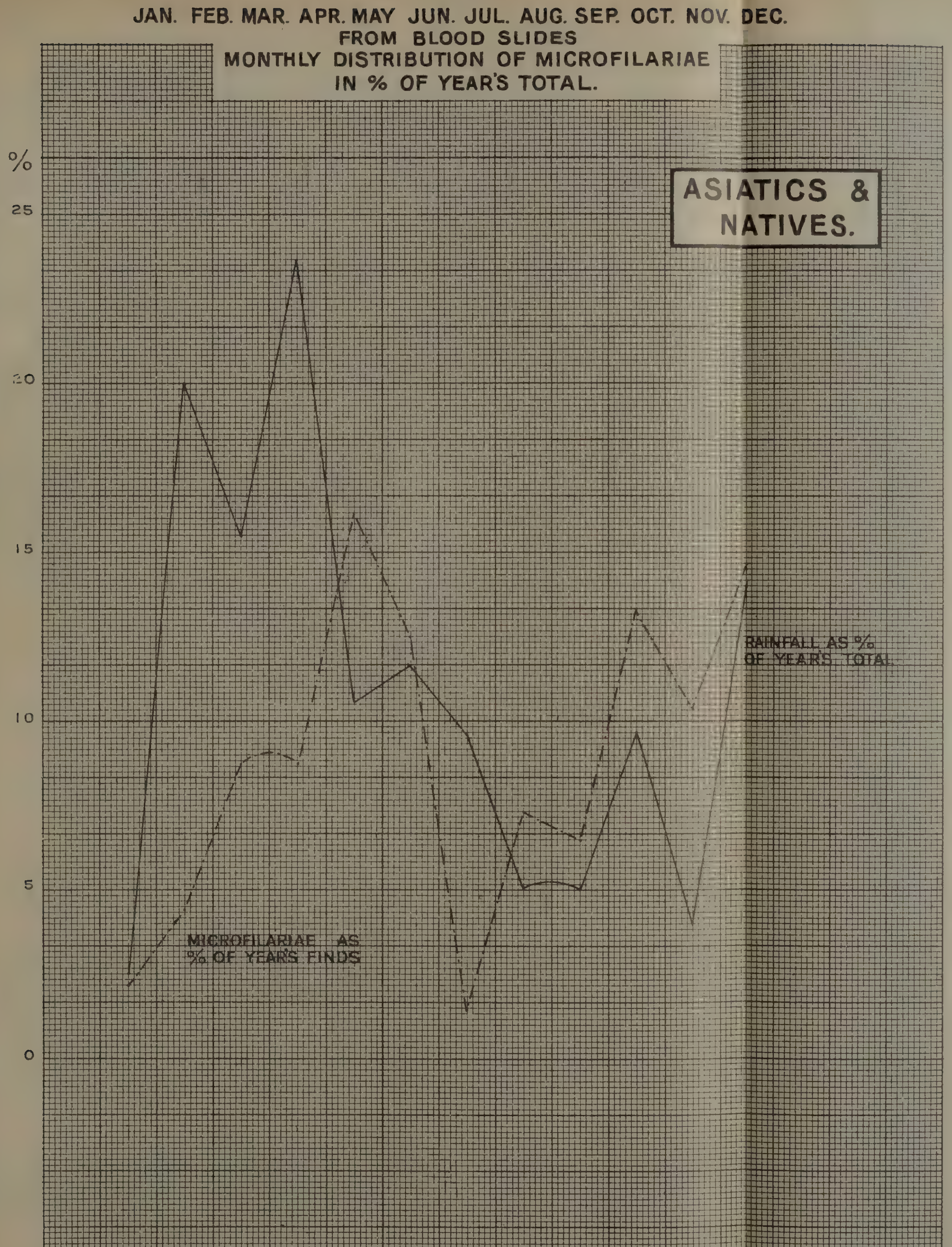
Europeans	13
Asiatics	17
Natives	34

Few, if any cases have occurred among the local resident population. A history of recent safari into or through tick infested villages in the interior, can almost invariably be elicited from patients whose blood contains this spirillum.

(*e*) *Microfilaria.*—As a matter of routine, blood films are examined for microfilaria, and 142 have been found. This represents a percentage of 3·6 on the total of films examined, and no cases have occurred among Europeans. All these, except eight specially asked for, were found in the day blood of patients. In the eight specimens referred to, the number of microfilariæ in the night blood, was, contrary to expectations, considerably reduced.

As both, flies of the genus Chrysops and cases of Calabar swelling are rare on this coast, few as these cases are, they would appear to refute the general opinion in relation to the periodicity of microfilaria in the peripheral circulation. Sheathed and unsheathed varieties have been noted throughout the year, the maximum findings being attained in May, the month following the maximum rainfall registered. The remaining cases scattered over the year appear to bear some superficial relation to meteorlogical conditions as is suggested by the adjoining chart, and this in spite of the fact that the migratory habits of culex are not pronounced and infection with microfilaria usually "comes to stay."

1924.



FROM BLOOD SLIDES
MONTHLY DISTRIBUTION OF MICROFILARIAE
IN % OF YEAR'S TOTAL.

~~Jan~~ Mch : April My June July
J. A May June.

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A small variety belonging probably to the microfilaria perstans group is not uncommonly encountered. Insufficient data have been collected as yet to enable us to attempt an accurate classification of the types observed.

(*f*) *Trypanosomes.*—The occurrence of cases of suspected sleeping sickness in some of the districts in the interior led to a series of 32 blood and gland juice smears being forwarded for diagnosis or confirmation from Utete, Liwale, Namanyere and Kigoma. Among other hæmoprotozoa, 11 showed Trypanosomes.

(*g*) *Differential Leucocyte Counts.*—The main demand for these arises from the European Hospital, where clinical conditions require it or as affording a possible clue to diagnosis resultant on a return negative to parasites.

Marked leucocytosis, polymorphonuclear, mononuclear or eosinophilic or other points of interest or assistance to the physician are commented on as a routine. 28 differential leucocytic counts have been made by request, and there is little of interest to report in this connection.

(*h*) *Blood Parasites of Animals.*—As a matter of curiosity entirely, blood films of a few animals that came into our hands were made. Films of the following were examined with negative results in most instances :—

Bat, calf, canary, chameleon, civet cat, guinea pig, lizard, monkey, owl, rats, brown and white.

The parasites mentioned below were found :—

Monkey.—Hæmoprotozoa, resembling malaria, but taking the stain much more deeply.
Owl } Halteridia like organisms.
Canary }
Civet Cat.—Microfilaria unsheathed.

2. *Agglutinations.*—

For the typhoid and dysentery group of organisms only seven tests were performed, with the results shown below :—

Typhoid	Negative in all cases.
Paratyphoid, A, B, C, & D.	
Flexner Y.	
Morgans No. 1	

A modification of the Dreyer technique was adopted.

A series of over a hundred sera were treated by the above method for agglutination with B. abortus as much in consequence of Malta fever having been reported last year, as to ascertain the prevalence or otherwise of the disease and to explain occasional cases of fever of the undulant variety of obscure origin, unsatisfactorily diagnosed or not amenable to ordinary treatment. In view of the fact, too, that goat's milk is a regular article of diet with certain of the natives, it was thought the disease might be more prevalent than was supposed. Laborious attempts extending over the greater part of the year, however, have failed to show a single serologically positive case ; in many respects a very satisfactory result.

(3) *Blood Cultures.*—The blood was obtained by venipuncture and inoculated directly into the usual Ox-bile medium as occasion required. The culture was employed in three European cases, all proving negative.

(4) *Wassermann and Flocculation Tests.*—Dr. Butler was engaged, when he handed over charge of the Laboratory to me, in an enquiry into the relative merits of the Wassermann and Khan tests. As insufficient data had been collected for a comparison and report, as also the personal factor enters so largely into the reading and interpretation of results, these investigations were continued by the former, assisted by Mr. Irvine in the first half of the year, and latterly by Mr. Hammond.

The results are dealt with below.

(*a*) *Wassermann Tests.*—604 sera were received during the year for this test, but 12 proved unsatisfactory for various reasons and were discarded. The remaining 592 were subjected to the full Wassermann Technique with the following results :—

	Europeans.		Asiatics.		Natives.	
Strongly positive ..	1	20·6 %	0	14·6 %	88	50·8 %
Positive	2		5		123	
Weakly positive	3		1		45	
Doubtful	0		1		8	
Negative	23		34		237	
Anticomplementary ..	0		0		19	
	29		41		522	

The cases from which these results were obtained were sent with the following clinical diagnosis and is of interest to compare the results under these headings which include all nationalities.

	Total.	Strongly Positive.	Positive.	Weakly Positive.	Doubtful.	Negative.
Primary Syphilis	9	2	—	1	—	6
Secondary ,, ...	8	2	1	3	—	2
Tertiary ,, ...	27	2	14	1	—	10
Syphilis	219	33	51	21	5	109
Syphilis (?)	59	4	11	6	2	36
Parasyphilis	3	—	—	2	1	—
Yaws	17	1	6	3	—	7
Not diagnosed	231	45	47	12	2	125

Interesting and suggestive points in these diagnoses are (i) the few cases regarded as Primary Syphilis ; out of a total of nine no less than four Europeans or Asiatics and (ii) the few cases diagnosed as Yaws, which is the commoner diagnosis away from the neighbourhood of large towns.

(*b*) *Kahn's Flocculation Test.*—The test was described in the 1923 annual report and need not be repeated. 486 Sera were received in a suitable state for the test, and may be classified as follows :—

	Europeans.		Asiatics.		Natives.	
Strongly positive ..	2	21 %	3	34 %	111	69 %
Positive	2		8		127	
Weakly positive	0		5		53	
Doubtful	3		7		15	
Negative	12		24		114	
	19		47		420	

The higher percentage of positive results obtained in this test compared with the Wassermann may be explained by the fact that many of the cases were under treatment, and that the test is less sensitive to treatment than the Wassermann test, as was suggested in the report for 1923.

If the cases are classified according to the diagnosis supplied with the material, as has already been done with the Wassermann above, the following results are shown :—

	Total.	Strongly Positive.	Positive.	Weakly Positive.	Doubtful.	Negative.
Primary Syphilis	9	2	1	2	2	2
Secondary ,, ...	9	4	3	1	1	—
Tertiary ,, ...	34	10	6	7	1	10
Syphilis	134	31	42	16	4	41
Syphilis (?)	72	15	14	12	8	23
Parasyphilis	1	1	—	—	—	—
Yaws	14	5	3	2	—	4
No diagnosis	209	46	67	18	8	70
Various diagnosis	4	2	1	—	1	—

B. II. EXAMINATION OF FÆCES.

1,180 stools have been submitted to microscopic scrutiny, an increase over last year's figures of 730. Of these 665 showed evidence of helminthic infections, a total percentage of 56·35. The following table gives the types of intestinal protozoal infestations with percentages :—

	Total.	Percentage of slides examined.
Ankylostomes	354	30·0
Tænia saginata	75	6·35
Flagellata	57	4·8
Strongyloides stercoralis	50	4·2
Trichuris trichinora	23	1·94
Amœbæ cysts	26	2·2
Amœbæ	13	1·1
Schistosomum mansoni	3	0·25
Ascaris lumbricoides	7	0·59

Expressing these figures as percentages of individual races including all helminthic infestations, the results are shown as follows :—

Europeans	39·2 %
Asiatics	6·1 %
Natives	61·14 %

The figures for Europeans would lead one to conclude that an unduly large proportion harbour intestinal parasites. This is not the case, for the figures are based on the number of stools sent to the laboratory for examination, and as many as six or eight stools of the same individual have been so forwarded on successive occasions.

The high incidence of helminthic infection more particularly with uncinaria (53·23 %) in the native is worthy of note. The figures are in all probability an underestimate of actual infestation. The method of examination of stools adopted in the laboratory is, for a small portion of a loopful of fæcal matter to be emulsified in a couple of drops of sterile saline solution on a glass slide.

In these circumstances, the finding of ova at all appear to me to indicate a moderately heavy infection. In quite a number of cases as many as thirty ova have been found on a single slide; in others merely two or three. The habits of the native moreover conduce towards infection and re-infection with ankylostoma. It is not inconceivable, however, with recent improvements in sanitation and hygiene, and possibly previous treatment for hookworm, that a recent and comparatively light infection would escape detection completely, unless a larger amount of fæcal matter were emulsified, filtered through tow and centrifuged. In other words, concentration methods would, I am convinced, show a very much higher incidence in anklostomiasis, and incidentally increase the percentages of intestinal protozoal infestations generally. Concentration methods however are impracticable and unnecessary in all cases. I have been led to these conclusions, in addition, by finding ova in stools that showed none for three, four and five consecutive examinations.

Infestations with two entirely different types of parasites are not uncommon. In one instance as many as five were found in the same individual.

Entamœba histolytica or its cyst are not seen as often as one might expect in the tropics, having been found in seven cases only of the thirty-nine recorded.

(*b*) *Bacteriological examinations.*—

Conradi-Drigalski medium is employed for the isolation of organisms of the Colityphoid group. 39 stools were plated, with negative results in 31.

Typhoid	0
Paratyphoid A. B. C. & D.	0
Flexner Y	5
Morgans No. 1	3
Negative	31

A typical B. coli communis were found in one or two instances. A curious feature of the so called "mango season" was the influx of a number of stools consisting mainly of mucus, from which no pathogenic, in fact no other organism than B. coli communis could be isolated on Conradi medium. Whether in certain circumstances, prevalent during this season, this bacillus acquires pathogenic properties in the alimentary canal we were unable to determine. One stool was forwarded from Singida with the request that anthrax bacilli be specially looked for. None were found, on microscopic or bacteriological examination. Ova of Schistosomum mansoni were found in three cases.

A sample of urine, from a female European patient was cultured, in an attempt to discover B. coli communis. The urine proved sterile.

B. III.—URINE EXAMINATIONS.

General urine examinations have been performed on 222 samples distributed as under :—

Europeans	89
Asiatics	28
Natives	105

Oxyhæmoglobin was found in a few cases, European and Asiatic, and none amongst natives.

Albumen was present in 54 specimens, Sugar in large amount in 7, Gonococci in 7 and ova of Schistosomum hæmatobium in 15, none of the last mentioned occurring in Europeans and Asiatics.

In one or two cases quantitative estimations of albumen were requested and done.

Four cases showed evidence of nephritis, none being amongst natives.

B. IV. PUS.

In the majority of pus films forwarded, the examination resolves itself into a search for gonococci. Urethral and vaginal smears to the number of 180 were received. Stated separately for the different races the total and results are as follows :—

	EUROPEANS.	ASIATICS.	NATIVES.
Urethral and vaginal smears	31	46	103
Total positive	13	27	52
Percentage of the total positives	14·1	29·3	56·5
,, of slides examined of each race	41·9	58·6	50·4
,, of slides examined of all races	7·2	15·0	28·8

Three times a search for B. tuberculosis and once for Entamœba histolytica in liver abscess pus was asked for. The result in each case was negative.

Five slides from suspected cases of anthrax infection up country were sent in. Bacillus anthracis was found in two. In this connection it is interesting to record that the type of anthrax infection when in malignant pustule form appears to be mild, and microscopically bacilli in the same smear may or may not take Gram's stain. Whether this is due to an attenuation of the strain of organism, or to a relative immunity in the native is an open question. Cases suspected to be anthrax in its intestinal form have been reported, but we have failed hitherto to isolate the bacillus from viscera and their contents. The usual history in such cases is briefly this : An ox falls dead in or near a native village ; as soon as it is discovered, which may be immediately or after the lapse of some time, the villagers proceed to divide and devour the spoil, occasionally raw and frequently only rizzled. In the course of a few hours most of them are attacked with symptoms indicative of violent gastro-intestinal disturbance, and in as many hours more, the majority of those afflicted succumb.

B. V. SPUTUM.

231 slides were subjected to scrutiny. 211 for B. tuberculosis ; 42 were positive.

	Slides examined.	Positive.	Percentage of Slides examined of each race.	Percentage of Positive.	Percentage of Slides examined of all races.
Europeans ..	11	1	9	2·38	0·47
Asiatics	62	10	16·1	23·8	4·7
Natives	138	31	22·4	73·8	14·69

Pneumococcus was found in preponderance in one slide.

B. VI. SCRAPINGS FROM ULCERS AND SORES.

Three such slides were examined for Treponoma pallidum. Results were negative in all. One scraping was forwarded for Leishmania donovani. It too was negative.

B. VIII. MISCELLANEOUS.

(*a*) *Exudates.*—Cerebro spinal fluid was submitted on two occasions for meningococci. None were found.

Pleural and peritoneal exudates forwarded from the interior showed putrefactive organisms.

A smear from a liver puncture was examined for Leishman-Donovan bodies. They were not found. A milky exudate from the scrotum of a native contained sheathed microfilariæ in numbers.

(*b*) *Throat examinations.*—Three throat swabs were examined. Two for diphtheroid organisms showed none. In one, Vincent's organisms were found.

(c) *Nasal scrapings and nodule punctures.*—Twenty-nine from suspected cases and cases under treatment showed intra cellular acid fast bacilli in nine. In two, short form acid fast bacilli, almost coccoid, were observed. Subsequent observations on the same two patients confirmed their nature in the discovery of typical B. lepræ. On two or three occasions in the same patient B. lepræ has been found in nasal secretions and not in nodule punctures and the reverse ; in these cases the absence of bacilli in one or the other is probably a matter of chance.

(d) *Skin and Hair examinations.*—The presence of Microsporon audouini was demonstrated in the only case occurring in the year, a European.

(e) An attempt to discover B. tuberculosis in a couple of vulcanite telephone mouthpieces stated to have been used by a consumptive, failed.

(*f*) *Sections.*—Tissues of various kinds were forwarded for examination. Ten were received, and sections or smears made and reported on.

Cerebrum (abscess at base)—B. tuberculosis not found.
Cerebellum (abscess at base)—acid fast bacilli found.
Brain smear (European, inland)—cerebral malaria.
Lymphatic glands from groin—B. tuberculosis not found.
Uterine contents—1. decidual tissue.
　　2. decidual tissue.
Neoplasms—Fibroma.
　　Fibro-sarcoma.
　　Enchondroma.
　　Squamous celled carcinoma.

Sections were also made of ten specimens that had been sent during the previous year. The tissues were identified, but in three no signs of pathogenic processes were evident. Of the remainder, two were lipomata, one chondroma, two sarcomata (one melanotic), one sebaceous cyst and one showing hypertrophied thyroid.

(g) *Entomological.*—Several entomological specimens have been sent for identification from various quarters of the territory, and several have been caught and in some cases bred locally.

Additions are gradually being made to the nucleus of a small museum left by the Germans. The classification and labelling of specimens has been attempted as time and opportunity afforded, and Mr. Hammond has artistically mounted a number.

Ticks.—Numerous specimens were sent in for identification or corroboration, some from native huts and encampments, others from animals. The following were identified :— Ornithodorous moubata, Hæmaphysalis leachi and punctata and Hyalomma ægypytium. Most of the specimens of Ornithodorous moubata proved non-infective.

Flies.—One or two specimens of Stomoxys calcitrans, Muscina stabulans, Phorinæ and several Tabanids have been collected. In the " mango season " dermal myiasis is commonly met with, and the larvæ of late instars have been bred in sand in the laboratory into imaginal Cordylobia anthropophaga.

Flies of the Glossina morsitans group are occasionally sent in from the districts, Culex, Stegomyia and Anopheline mosquitoes are common. A gnat of the family Tipulidæ, stated to be plentiful after the rains, and to cause irritating bites was sent from one station.

Fleas.—A large number of these was submitted for identification from all quarters.

Lice, Bugs.—One or two specimens of Pediculus pubis and Cimex lectularius and hemipterus were received, both from Indian sources.

(h) *Helminths.*—Ascaris lumbricoides ; a tangled mass of these was found in the stool of an Indian child treated with a vermifuge. Single specimens have been found on occasions.

Proglottides of Tænia are of common occurrence, but the scolices have been recovered from sifted stools in the case of three Europeans only, in whom tæniasis was diagnosed. All three were Tænia saginata.

Ankylostome ova were found in the stools of three European children, and the aggregate of ankylostomes recovered after treatment approached two hundred. In a field swarming with Strongyloides stercoralis larvæ, one adult female was recognised.

An interesting case of hernia in the native hospital furnished us with a specimen of Dracunculus medinensis. The worm was found lying loosely coiled in the hernial sac, and was removed entire. It was immersed in dilute serum in a Petri dish and deposited in the incubator at blood heat. With occasional changes of medium, it was kept alive for twelve days in the laboratory.

Schistosomum cercariæ, not however fork-tailed, were found in large numbers from two types of fresh water snails as yet unidentified, which were obtained from streams in the Gerezani and Msimbazi valleys.

(*j*) *Autogenous vaccines.*—From time to time during the year, but more especially in the hotter months, demands for autogenous vaccines arise, in every instance hitherto from Europeans. The condition for which they are in greatest demand is furunculosis, but vaccines have been made for intractable rhinitis and recurring abscesses. Ten autogenous vaccines have been made. The organism most frequently isolated in Staphylococcus aureus, and when colonies of more than one organism have been found, Staphylococcus aureus has invariably been present. It has not been possible to follow all the cases treated with vaccine of this nature, but in three, undoubted benefit has followed its subcutaneous administration.

In two cases, where auxiliary treatment in the form of local applications were carried on concomitantly with the injections, benefit resulted, but whether from the one or the other or both, it is impossible to say. Four left the station before treatment was completed or its value could be gauged. Two of the vaccines were made for children under one and seven years of age respectively. One was frankly a failure, and though a cure was eventually effected, it could in no way be attributed to the autogenous vaccine, which in fact, appeared to markedly aggravate for a prolonged period the focal condition on each occasion on which it was used.

(*k*) *Calculi.*—A vesical calculus, the size of a walnut, was found to consist of uric acid and phosphates. A few smaller ones from another patient contained calcium oxalates and urates.

C. CHEMICAL EXAMINATIONS.

I. *Milk Analysis.*

(*a*) *Tinned Milks.*—Fourteen samples of tinned milk were analysed. The fat content of twelve exceeded the standard. Two, labelled machine skimmed condensed milk, showed a percentage of 1·1, and 0·1 of fat by weight respectively. The Gottlieb process of analysis is employed with condensed milks.

(*b*) *Natural Milks.*—The number of analyses of natural milks has reached a total of thirty-nine. It is gratifying to record that not one was found "wanting" in fat content. The vigilance of the Health Authorities is responsible for this to a great extent. Milk is not infrequently found mixed with water in the homes, but this is accounted for by the petty pilfering of domestic servants. The scientific sophistication of milk is an art the local vendor has not yet acquired. The nearest approach to it, and one presenting great difficulties in detection in the present circumstances unless gross, is the addition of goat's to cow's milk. For purposes of control, a series of guaranteed samples of cow's and goat's milk respectively were analysed last year, and the average fat content of each recorded.

Search was made in one sample of milk for B. tuberculosis. The milk was found to be free.

Exclusive of the above, three samples of cow's milk were forwarded from Dodoma, and two were found to have been liberally diluted with water.

II. Samples of butter, ghee, flour and dried fruit were received, and the latter (flour) in one or two instances proved to be mixtures of maize and cassava flour. Weevils were found in many. No adulterants encountered in the others.

III. *Salt Deposits.*—Two samples were forwarded. One contained caustic soda about 90 %, with a remainder of sodium carbonate formed probably from exposure to the air. The other sample contained 95 % of sodium chloride with several other salts in small quantities.

IV. *Drugs.*—Samples of seven drugs procured in an Indian shop were submitted for examination, five were identified.

The stalk and leaves of a plant supposed to have narcotic properties, and alleged to be in common use amongst the natives, was forwarded from Bagamoyo. In micro- and macroscopic appearance, odour and taste, it bore so close a resemblance to Cannabis indica that it was considered to be an African variety of the plant, though physiological and chemical tests, with their many fallacies, in regard to this particular drug failed to uphold this opinion. Some weeks later a packet of native made cigarettes, alleged to have hypnotic qualities, were submitted for examination, and found to contain tobacco and the dried leaves of the plant previously reported as being an African variety of Cannabis indica. A crystalline powder used as a medicine locally we failed to identify and information of a negative nature only was gleaned from its examination. A tuft of leaves sent with the above was recognised as belonging to the order Chenopodiæciæ.

D. Medico Legal.

In this branch of the laboratory's activity thirty-three separate examinations of material have been made in the year, representing seventeen cases of which Dar-es-Salaam has supplied nine, five concerning Europeans.

The materials requiring scrutiny have been articles of wearing apparel for blood, gonococci and spermatozoa ; smears, vaginal or urethral for gonococci and spermatozoa ; human viscera, and bark, leaves etc., for poison ; and native weapons for blood.

Cases may be classified under the following heads :—

(*a*) *Murder.*—Eight cases come into this category, all from districts in the interior.

A bush knife, a small knife and a sack ; stains of blood found on the first and last, and of rust only on the small knife. A weed, extracts of which are alleged to have caused death ; no poisonous substance detected.

A stain on a shirt, suspected to have been blood, proved to be due to vegetable juice or " pombe."

Four articles of clothing in another case showed blood stains on three.

In two cases stomachs and contents were despatched to us with the request that poison be looked for. None was found. A piece of bark sent with one of the above, and supposed to be Erythrophloeum guinense showed no poisonous properties. A native sword with stains that responded to tests for blood was reported on.

A native medicine received from Shinyanga, with some dried ginger, was shown to contain no toxic principles.

(*b*) *Attempted Suicide in delirium.*—A relatively large amount of quinine was recovered from the vomit of a patient showing signs of cinchonism. The quinine had been taken in tablet form, apparently at intervals ; one or two tablets were recovered whole.

(*c*) *Rape.*—Four cases have occurred during the year, all four being in Dar-es-Salaam.

In two, no blood, spermatozoa or gonococci were discoverable. In each of the other two cases, the victim was a girl under five years of age, and gonococcal infection of both children and two accused was discovered, clinically and microscopically.

(*d*) *Post mortems.*—A case of alleged suicide. Early in the year, a Belgian woman died from a gunshot wound in the head. Post mortem examination revealed a ·22 bullet embedded against the inner table of the skull, above and behind the right ear, the skin round the wound of entrance on the left temple was smoke and powder stained.

(*e*) *Suicide.*—In August, the body of an adult European male in an advanced state of decomposition was discovered on a pathway to a native village at Kurasini, south of the King's African Rifles' Depot. The body was swarming with maggots, and had been attacked by a small animal of the jackal type. Examination showed a bullet wound on the right temple, a gaping wound of exit exuding brain matter was found above and behind the left ear. Revolver bullets were found in the pockets of the coat, of a size compatible with the assumption that one of the same type had caused death.

The revolver was not found. The evidence pointed to *felo de se*, and this was shortly after confirmed.

(*f*) *Poisoning.*—Towards the end of the year, an English woman and child were taken ill within half an hour after the evening meal, and succumbed within four hours. Post mortem examination revealed nothing marked, but disintegrated fish roe was observed in the stomachs. Feeding experiments with vomited matter, stomach contents and extracts did not adversely affect the laboratory animals used. The police unearthed from the garden of the deceased, a fish, the roe of which had been removed, and sent it to us. Reference to text books enabled us to identify the fish as belonging to the Tetrodon group. It is common knowledge with the coast natives that this fish (which they call the " Bunju ") is poisonous. It is not generally known that it is the roe which contains all the poison, nor that the roe is poisonous only at certain seasons of the year. Presumably the acquisition of venomous properties is a natural defence against aggression or annihilation during a vulnerable period of the existence of the young. The active principles, tetrodonin and tetrodonic acid are stated to have a three-fold toxicity directed against the cardiac, respiratory and nervous systems, and clinical evidence in the above cases affords corroboration of the statement.

(*g*) *Cerebral Malaria.*—A young officer who had gone up the coast on a shooting expedition in a native sailing vessel was taken ill with symptoms that were considered to resemble heat stroke. He was hurried back to Dar-es-Salaam, but died a few hours before reaching the port. A post mortem examination revealed evidence of a severe attack of cerebral malaria.

E. WATER ANALYSIS.

(*a*) *Chemical Analysis.*—Water samples have been received from various quarters and sources. Out-stations have supplied 28, and Dar-es-Salaam 8, making a total of 36 analysed in the year. The samples have been taken from rivers, wells, springs, swamps, boreholes, and mains. The object of analysis of the majority of these samples has been to ascertain their fitness or otherwise for domestic use. A few, however, have been examined for commercial purposes, while one or two were stated to have medicinal properties, and were forwarded from the point of view of interest.

Lack of knowledge of the technique of collection and dispatch of samples, lack of transport and storage facilities, necessary delays in transmission and other reasons, incidental to a more or less pioneer existence in the tropics, have to a large extent precluded the possibility of a complete analysis being made of all waters sent to us.

A large number of waters from the interior are unfit in their natural state for human consumption, and the majority from all sources would be condemned on English standards. Int he tropics, however, stringent English standards cannot be rigidly adhered to, and when reporting on water required for drinking purposes the strict injunction to " boil and filter " is invariably quoted.

It has been noted that waters from the vicinity of Tabora and a few other inland towns show a milky opalescent appearance, due to silica in a very fine state of division being held in suspension. Storage of such samples undisturbed for three months has not resulted in sedimentation to any marked degree, nor has filtration through double filter paper any appreciable effect on the clarity of the water. A summary of experiments conducted with such a sample is appended. (V.)

Some of the samples taken apparently from swollen rivers were a muddy brown colour, becoming opalescent on standing, with a sediment of mud $\frac{1}{2}$ " to $\frac{3}{4}$ " in depth.

The chlorine content of samples taken from wells and boreholes in the costal areas was high, in one instance closely approximating to that in sea water.

Magnesium salts are frequently present in sufficient quantity to vitiate the estimation of the hardness of samples.

Nitrates and nitrites have been found in a few samples, traceable in a few instances to the iron mains.

Projected settlements in new sites has resulted in several water samples from new sources in the neighbourhood of Kibata, Kilwa and Lindi being sent for analysis.

From Mtagata Hot Spring, Bukoba, a bottle of water received was found to contain sulphuretted hydrogen. This water is the one referred to as being alleged to have medicinal properties—a spa in fact.

From Kigoma a short time ago a box was received containing small pieces of zinc that appeared to have been eroded by acid. It was stated that the water of Lake Tanganyika was having the curious effect of pitting boiler plates, and for experimental purposes a plate of zinc was placed in one of the boilers, and after three months immersion it was reduced to the condition in which it was received, scored as by acid, and in little chips. Samples of water were asked for and experimented with. The mineral content of the water included Sodium, Potassium and Calcium, Chlorides, Carbonates and Sulphates. The water had no markedly solvent action on zinc in vitro, either when boiled periodically or when left standing. It was believed and reported that the erosion of the plate was due, in all probability, to galvanic action.

(*b*) *Bacteriological Examinations.*—Ten samples of water were submitted to bacteriological examination, three being aerated mineral waters.

Indicator organisms were found in most in unit amounts of sample.

F. RAT EXAMINATIONS.

These are carried out daily. A total of 14,644 were received, including Rattus rattus alexandrinus, 14,608 were classed as Rattus rattus, and the remaining 36 as Rattus norvegicus.

The "break-back" variety of trap has replaced the "Everset" wire type, and many of the rats, as reported last year, arrive in a decomposed state. Splenic smears as formerly are taken of rats dissected, especially of those with any suspicious glandular enlargement. B. pestis has not been found in any.

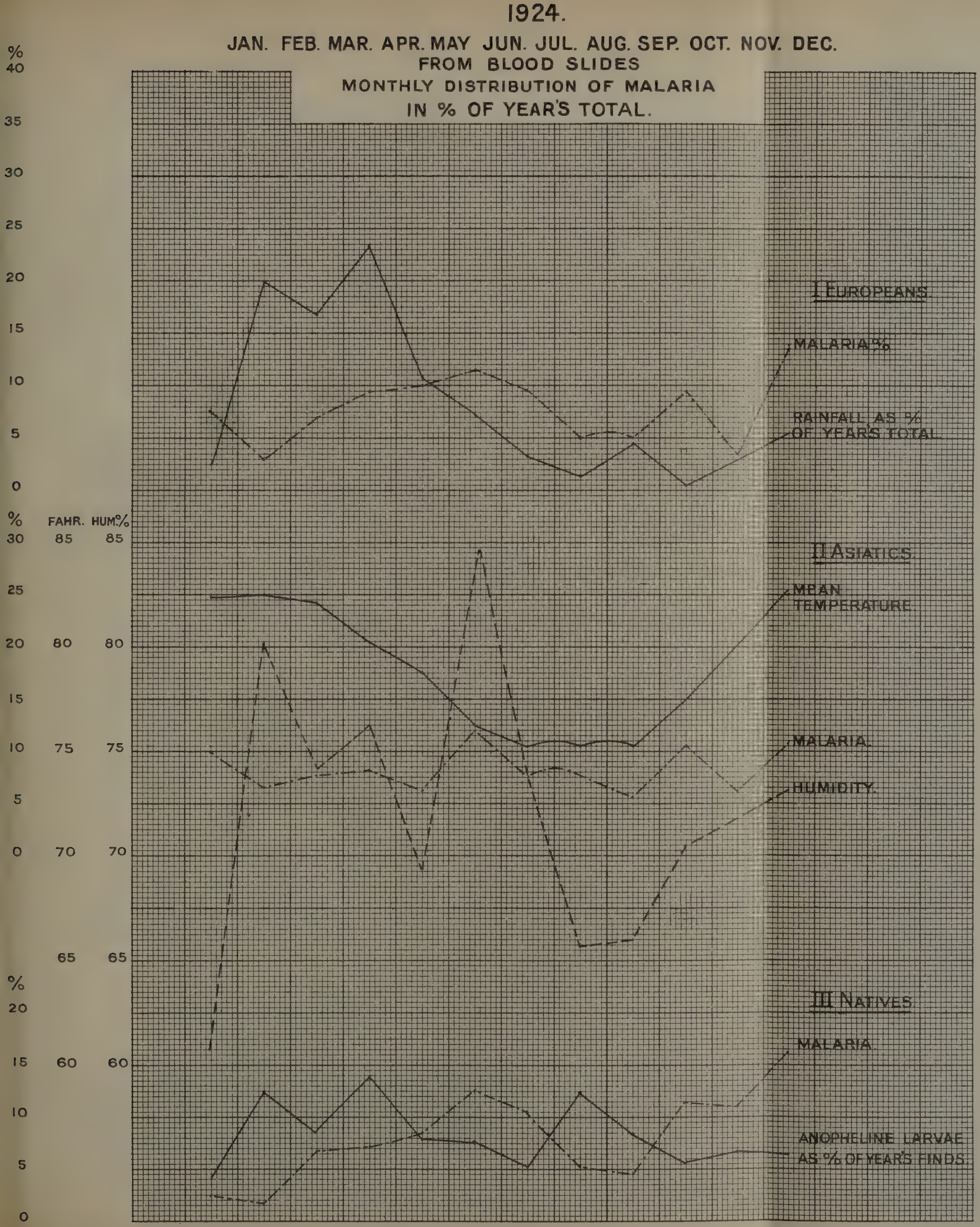
Excision of the bladder and examination of contents, together with renal smears have been done in a few cases. Search for Leptospira icterohæmorrhagiæ has been futile.

G. METEOROLOGY.

(*a*) *Rainfall.*

Month.	Total in inches.	Number of days on which rain fell.	Maximum on any one day.
January	0·764	9	0·503
February	6·11	13	1·25
March	5·12	22	0·95
April	7·135	16	1·45
May	3·27	14	0·98
June	2·3	10	0·72
July	1·04	5	0·36
August	0·555	8	0·3
September	1·395	9	0·7
October	0·25	7	0·13
November	0·85	8	0·41
December	1·68	7	0·92
Total	30·469	128	—

The rainfall for 1924 exceeds that of last year by 5·259, but is approximately two inches less than that recorded in 1922. The number of days on which rain fell is 128, as compared with 103 and 104 in 1923 and 1922 respectively.



1924.

FROM BLOOD SLIDES
MONTHLY DISTRIBUTION OF MALARIA
IN % OF YEAR'S TOTAL.

LIBRARY
[illegible]

(*b*) *Temperature.*

Months.	Mean.		Highest Recorded.		Lowest Recorded.		Mean Humidity.	Mean 9 a.m. Humidity.	Mean 4 p.m. Humidity.
	Cent.	Fahr.	Cent.	Fahr.	Cent.	Fahr.			
January ..	28·0	82·4	33·5	92·3	22·5	72·5	60·8	70·8	50·9
February ..	28·1	82·5	34·0	93·2	21·0	69·8	80·1	78·0	82·3
March	27·9	82·2	33·5	92·3	22·0	71·6	74·1	78·4	69·8
April	26·8	80·2	33·5	92·3	21·0	69·8	76·3	79·4	73·2
May	26·1	78·9	32·0	89·6	19·5	67·1	69·3	75·4	63·3
June	24·5	76·0	31.0	87·8	19·0	66·20	84·7	86·5	83·0
July	24·0	75·2	31·5	88·7	16·5	61·70	73·6	83·0	64·2
August ..	24·1	75·3	31·0	87·8	16·5	61·70	65·7	74·2	57·2
September ..	24·1	75·3	31·0	87·8	17·5	63·5	65·9	67·6	64·2
October ..	26·3	77·5	31·0	87·8	18·5	65·3	70·5	70·2	70·8
November ..	26·7	80·0	32·0	89·6	20·5	68·9	71·7	70·6	72·4
December ..	28·1	82·5	33·5	92·3	22·0	71·6	73·0	76·0	70·0

(*c*) *Malaria and Meteorology.*

A graph of the monthly malaria incidence in the different races concomitantly with meteorological observations during the same periods is here given for comparison.

The gradual rise in the malaria curve in relation to the non-immune nationalities, Europeans, commencing in February, and reaching its zenith in June, two months after the maximum rainfall attained, is explained by the height reached by the rainfall in February and sustained till late April, leaving the earth water-logged, and with numerous breeding places for mosquitoes. The final rise in the malaria curves for all races in December appears to be out of proportion to the rainfall, humidity and temperature curves, though the last named in the tropics is not considered to have any marked influence on the disease or its vectors.

As with the Europeans, Asiatics and Natives less susceptible to the malady show an increase of malaria corresponding though in a lesser degree with the rainfall.

We were, unfortunately, unable during the year to obtain continuous humidity readings, and as those plotted are the means of morning and afternoon observations, it has not been possible to ascertain with accuracy whether humidity has any bearing on the subject of anopheline mosquitoes and malaria.

H. ANTIVARIOLOUS LYMPH VACCINE.

The manufacture of lymph vaccine was carried on by Mr. W. A. Irvine in the first half of the year, and continued by Mr. Hammond on his return from leave.

The lymph is glycerinated and made according to the Hendon method. Its potency is maintained by alternate transmission from calf to monkey at intervals of a week. Before despatch the lymph is kept a month and cultured ærobically and anærobically. An anthracoid organism innocuous to laboratory animals, and probably B. subtilis, is occasionally isolated.

Thirty-six stations scattered over the Territory have been supplied with lymph to the extent of 173,550 doses. The table below sets out distribution and results :—

Station.	Amount of Doses issued.	Number Vaccinations accounted for.	Positive.	Modified.	Not seen again.	Percentage of takes.	Percentage of takes, Positive & Modified combined.
Arusha	2,100	1,599	934	—	200	66·0	—
Bagamoyo	2,200	705	315	127	90	71·5	—
Bukoba	10,400	1,046	—	—	—	—	Not reported.
Dodoma	9,400	8,664	7,282	—	354	87·6	—
Handeni	200	200	146	—	—	73·0	—
Iringa	8,400	7,679	2,801	2,231	507	70·0	—
Kasanga	1,100	1,100	—	—	—	—	Statistics not reported & lymph forwarded from Kasanga to sub-districts.
Kilwa	4,350	3,254	1,833	—	729	72·5	—
Kilosa	1,200	1,130	613	280	—	79·3	—
Kigoma	3,200	325	149	36	80	52·0	—
Kidugalo	1,700	—	—	—	—	—	Not reported.
Kondoa-Irangi	1,100	920	473	189	25	76·0	—
Lindi	2,900	1,026	367	213	148	66·0	—
Lushoto	1,200	1,119	517	263	187	76·0	—
Moshi	12,100	5,380	933	14	500	19·4	—
Masoko	1,100	—	—	—	—	—	Not reported.
Mahenge	1,800	1,205	776	80	—	71·0	—
Mafia	300	—	—	—	—	—	Not reported.
Mikindani	900	629	368	9	95	70·0	—
Mbulu	200	200	130	—	—	65·0	—
Musoma	200	—	—	—	—	—	Not reported.
Namanyere	2,200	1,809	350	34	320	25·7	—
Morogoro	1,300	492	395	52	8	99·3	—
S.M.O.H.,Dsm.	21,100	19,003	7,958	1,082	—	59·2	—
Mwanza	9,200	7,486	5,624	981	9	88·4	—
Mheza	100	—	—	—	—	—	Not reported.
Pangani	4,500	4,210	3,783	—	176	87·0	—
Shinyanga	1,200	556	290	—	12	53·3	—
Songea	1,300	860	550	187	—	85·6	—
Singida	1,200	1,265	814	234	98	89·78	—
Tabora	22,800	17,697	4,617	2,278	—	89·3	Certain amounts of this was usedinsub-districts of Tabora.
Tanga	13,100	11,184	1,281	110	9,428	84·0	—
Tunduru	1,100	813	214	167	300	74·2	—
Tukuyu	6,600	2,409	1,287	—	482	66·7	—
Utete	4,900	4,800	2,911	688	596	85·3	—
Zanzibar	16,000	—	—	—	—	—	-

The largest issues have been made to the three principal towns, Dar-es-Salaam, Tabora and Tanga, and outside the Territory to Zanzibar. Of thirty-six stations, to which lymph has been despatched, thirty report results fairly regularly.

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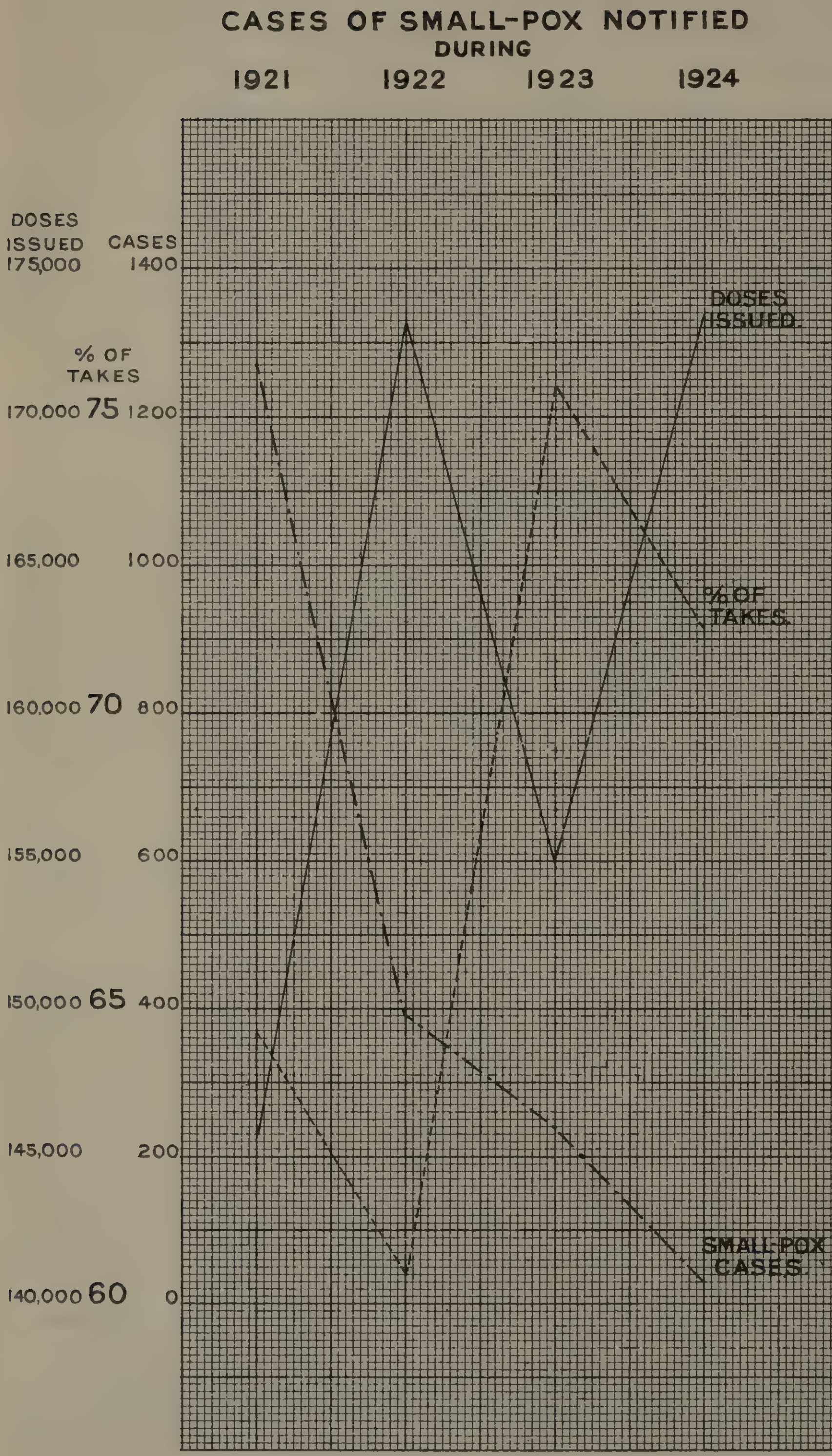

CASES OF SMALL-POX NOTIFIED DURING

In gauging the efficiency of the lymph, it has to be remembered that the vaccine is sent in many instances to towns in the interior, several days journey from the coast; that conditions of temperature obtaining in the tropics adversely affect the activity of the vaccine; that the lymph may be stored in conditions far from ideal for some time before use; that it has often to be sent to sub-districts, where dressers or compounders are required to scarify; that subjects who have suffered from small-pox or been previously vaccinated, must in certain cases be taken indiscriminately; that errors in technique are not always avoidable in the numbers dealt with; that not all who have been vaccinated return for inspection; and lastly that the subjects themselves are ignorant as a rule, and by accidentally or intentionally rubbing their arms after the operation, defeat the purpose intended.

An instance illustrative of the actual value of the vaccine lymph, where most of the above-mentioned objections can be disregarded, is available in the results obtained by the Senior Medical Officer of Health, Dar-es-Salaam, using vaccine lymph from the same source during the year under review. Of 19,003 men, women and children (some previously protected) who were vaccinated between June and December, and of whom 15,268 and 3,735 were re-inspected on and after the 8th day respectively, 7,958 showed successful, and 1,082 modified results, giving combined a percentage of 59·2.

Successful results reported from many stations exceed this figure, while two or three are much below.

The Zanzibar Government discontinued its demand for vaccine lymph from September; 16,000 doses were supplied them in the first eight months of the year, representing a revenue of £160.

The number of calves inoculated during the year totalled 58, being 24 fewer than in the previous year; the amount of pulp yielded was 398·7 grammes, representing 157,450 doses, an average yield per calf of 6·87 grammes or 2,701 doses. The maximum yield per calf was 23·5 grammes, and the minimum one gramme. This improvement in the yield is probably due to the fact that the rainfall was distributed fairly evenly over the year, and green fodder was never entirely lacking.

The amount of lymph issued during the year exceeds that made, the difference representing the surplus carried over from the previous year.

7,000 doses were used for seed purposes.

1·5 c.c. Glycerinated emulsion is still being issued as 100 doses.

Subjoined is a table of comparison for the years 1921 to 1924. It is satisfactory to note the increase in the "total reported on," the percentage being 68·4 as compared with about 50 % in the previous year:—

	1921	1922	1923	1924
Calves Inoculated	87	51	82	58
Grammes of Pulp	386·22	388·0	510·2	398·7
Lymph in c.c's.	1692·5	1787·5	2760·0	2361·75
Total Doses	169,250	178,750	184,750	157,450
Doses issued	145,875	173,450	155,050	173,550
Percentage of "takes"	64·6	60·5	75·4	71·5

The steady decline in cases of small-pox notified throughout the territory during the last four years is illustrated in the graph shown opposite.

APPENDIX I.

Experiments in Germination of Cereals and Pulses.

I have the honour to submit the results of experiments in the germination of certain pulses and cereals in common use, and more or less generally procurable in the territory.

Preparatory to the receipt of seeds from the various institutions addressed, experiments were made with a few procured locally.

The pulses treated were Njugumawe, Kundi, Chiroko, Gram Mioth and Maharagwe, and the cereals Mtama, Uwele and Maize.

The method adopted was briefly as follows :—

A few grains of each article were placed in a beaker and washed by swilling them round in two or three changes of tap water. They were then permitted to soak for about twelve hours at room temperature, which varied between 20° and 30° c., and finally placed on moistened blotting paper in covered Petri dishes, to minimise loss of moisture by evaporation. Each dish was appropriately labelled. By this method the smaller grains that had been attacked by insects were seen to float, affording an easy means of discarding the bad seed. The larger grains were not rendered sufficiently buoyant to float, by the bubble of air enclosed in the tunnel made by the insects, but these were found in the experiments to be easily compressible between the fingers after soaking, and were pasty to the feel. Each grain so affected, moreover, exuded a foul smelling viscid milky fluid, easily seen against a dark back ground. This milky fluid, while not actually inhibiting growth, had the effect of retarding to the extent of a day or two, the germination of good seed in close proximity.

The smaller grain were found to be attacked by one insect only. The larger grains were attacked, often more than one to a seed, by the grey mottled hunch-backed weevil. Some Maharagwe beans contained small oval powdery yellow pollen-like masses, revealing under the microscope the presence of acari. Careful scrutiny with the lens of the entire surface of several beans failed to show, except in two specimens, any opening, yet small insects identified as the unfledged imagines of the grey weevil, were found under the unbroken pericarp. In some, no weevils were apparent, but the cotyledons were brownish, and undergoing degeneration. The time taken by each seed to germinate varied according to the kind and the proximity in the same dish of bad seed, other factors being constant. Even seeds of the same kind varied within narrow limits in regard to the time of generation. The average period required by each is set out below, including twelve hours submersion.

PULSES.	Chiroko	18 hours.
	Njugumawe	3 days.
	Kundi	2 days.
	Mioth	2½ days.
	Cram	2½ days.
	Maharagwe	failed to germinate.
CEREALS.	Uwele	2½ days.
	Mtama	2½ days.
	Maize	3 days.

The same experiment, using distilled water, resulted in the time of germination being slightly protracted.

In no case was Maharagwe successfully germinated, though drying in the sun for two or three days, and implanting in earth were resorted to.

Endeavours were made to ascertain whether mechanical damage to the beans was responsible for the inhibition of growth. To this end, several beans of Chiroko and Njugumawe were perforated, shelled, scooped or otherwise intentionally injured. Those in which the germinal area was damaged in the least degree, as also those in which the larger portion of both cotyledons was removed, failed to grow.

The remainder were unaffected.

Dissection of several beans revealed the fact that insects did not invariably attack the germinal area, being found in some cases at the end of a cotyledon away from it. Growth, however, was inhibited in every single instance where an insect was found in or to have attacked and left a bean, irrespective of its position in relation to the germinal area.

This would lend colour to the theory that it is a secretion of or excretion from the insect that destroys the vitality of the bean. A hundred per cent. of the Maharagwe beans apparently sound that were examined, contained imagines of weevils or acari. It is interesting to note too that the perforation of the pericarp in this bean takes place from within, the portion of the husk perforated to form the exit is in the form of a disc as though punched.

Beans were forwarded from Tabora, Tanga and Dar-es-Salaam, those from the former being Njugumawe, the remainder Maharagwe. The results of experiments with these were in every particular identical with those given above.

Feeding experiments with white rats, designed with a view to comparing the nutritive and vitaminic values of whole and weevil riddled seeds, had to be abandoned, as none of the white rats on arrival was in good enough condition.

APPENDIX II.

Experiments with Tabora Water.

With reference to the request that the minimum amounts of Sulphate of Alumina and Lime required to precipitate the silica in the samples of Tabora water forwarded, be ascertained with the time required to achieve this end, the following results emerge from experiments conducted in the laboratory.

Small amounts (100 c.c's.) of the water were used for each experiment, and it was found that slightly less than 0·01 gramme of Sulphate of Alumina completely precipitated the suspended Silica in about 3 to 4 hours.

Insufficient water was sent to ascertain the effects on precipitation, of varying amounts of lime, in conjunction with Sulphate of Alumina.

Observations made during the experiments point to the probability of proportionately less alum being required in dealing with larger volumes of water.

Further experiments were performed with a view to ascertaining the minimum amount of dried builder's lime and alum, separately and in combination, required to precipitate the silica in the water samples forwarded from Kidete (Tabora district).

The results of these experiments are as follows :—

(*a*) 1. Using alum alone as precipitant the required result was obtained in 3 to 3½ hours with a minimum of ·01 gramme of alum per 100 c.c. of water (10 parts per 100,000 or 7 grains per gallon).

2. Of ordinary builder's lime (dried by heat) 0·05 gramme was required, the result being obtained in 2½ to 3 hours (50 parts per 100,000 or 35 grains per gallon).

3. Combinations of alum and moisture-free lime required the same minimum amounts as when used separately, and precipitation of silica was not accelerated.

4. Addition of alum or dried lime separately or in combination, in amounts less than the minimum did not produce precipitation of silica in the water sample, even when the minimum of 0·01 gramme and 0·05 gramme respectively were reached.

(*b*) 1. The total hardness of the original water sample is very low, viz., 0·7 parts per 100,000.

2. After effectual precipitation of silica with 0·1 and 0·05 grammes lime respectively, the total hardness reaches 6·5 and 3·3 parts per 100,000.

3. On filtration through a layer of dried lime with an average thickness of ¼″, at the rate of 100 c.c. per hour, the water emerges clear, and its hardness totals 6 parts per 100,000.

(*c*) The last sample of water forwarded to the Laboratory does not appear to have come from the same source as previous samples. It has a fairly thick sediment of mud, and requires twice the above amounts approximately of alum and lime.

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INDEX.

A.

PAGE

Abortus, Bacillus .. 201
Agglutinations .. 201
Ankylostomiasis .. 42, 136, 137
Anopheline mosquitoes, breeding in Dar-es-Salaam .. 142-146
Anthrax .. 41
Antivariolous Lymph .. 211-213
Appointments to staff .. 6-7
Asylums .. 128-130

B.

Bayer "205" .. 44, 139
Bhang .. 13
Bilharzia .. 42, 185
Births, Registration in townships needed .. 50, 142, 193
Bismuth Sodium Potassium Tartrate .. 46, 49, 131
Blackwater Fever .. 21-23, 43, 138
,, ,, European Incidence of .. 21-23
,, ,, Morbidity due to .. 21-23
Blood-cultures .. 201
,, Examinations .. 199-201
,, Parasites of Animals .. 201
Building Inspector .. 43
Buildings, medical and minor works .. 13, 157
Bunju .. 24, 37, 41, 209

C.

Calculus of Urinary Bladder .. 41, 207
Cereals and Pulses, Germination of .. 214, 215
Cerebro-Spinal Meningitis .. 41, 133
Cesspit emptying .. 154
Chaulmoogra, treatment of Leprosy by ethyl esters of .. 153
Circulatory System, diseases of .. 37
Climate and Meteorology, Dar-es-Salaam .. 14
Coconut Palms, in townships, Mosquitoes breeding in .. 180, 193-196
Committee, Central Town Planning .. 141
Connective tissue, diseases of .. 37

D.

Dar-es-Salaam : Drainage and fillings .. 145, 146
,, Return of Diseases and Deaths, Infectious Diseases Hospital .. 177
,, Morbidity due to Malaria and Blackwater Fever, Officials .. 17, 147
,, Mosquito bionomics .. 142-146
,, Mosquitoes, identified .. 147, 148
,, Plague .. 149
,, Rats, report on destruction of .. 149, 150
,, Routine Sanitary Work .. 170-175
,, Rainfall .. 176
,, Sanitation, cost of .. 160-164
,, Sick rates of European Officials resident in .. 17-20
,, Native Sanitary Inspectors, training of .. 159
,, Annual Report of S.M.O.H. .. 141-177

PAGE.

Deaths .. 24
,, European .. 24
,, in Dar-es-Salaam, notified .. 166-169
,, of Officials, Asiatic .. 25-29
,, ,, ,, European .. 15, 17-20
,, Registration in Townships needed .. 50, 193
Deficiency Diseases, Food, in Natives .. 38-41, 214-215
Dengue .. 41
Dental Surgeon, Government, report of .. 97
,, work among School children .. 158
,, Practitioners, Registration of .. 14
Diet, of Labour .. 38, 214, 215
,, ,, Prisoners .. 39, 40, 214, 215
Digestive System, diseases of .. 37
Diphtheria .. 41
District work .. 50
Diseases and Deaths, In and Out-patients, return of .. 67-92
Drainage .. 50, 192
Drugs, analysis of .. 208
Druggists, Registration of .. 14
Dysentery .. 41

E.

Ear diseases .. 37
Elephantiasis .. 42
Encephalitis Lethargica .. 41
Endemic Goitre .. 41
Enteric group of diseases .. 42, 133
Entomology .. 206
Expenditure, Medical Department .. 11, 12
Eye diseases .. 37

F.

Fæces, Examination of .. 203, 204
,, Bacteriological examination of .. 204
Filariasis .. 42, 200, 201
Financial Returns .. 11, 12, 162
Fish poisoning .. 24, 37, 209
Food supplies, inspections of .. 155, 156

G.

Game Reserves, Tsetse Fly and Trypanosomiasis .. 44
General, Systemic and Preventable Diseases .. 37
Generative System, diseases of .. 37
Germination of Cereals and Pulses .. 214, 215
Glanders .. 42
Goitre, parenchymatous, in Natives .. 42
Gonorrhœa (*see* also Venereal Diseases) .. 50
Guinea-worm .. 42, 207

H.

Health, general remarks .. 14
,, Reports .. 15
,, Visitor .. 15, 156
Helminths .. 37, 42, 136, 137, 206
Hospitals and Dispensaries .. 13

I.

Infant mortality (*see* Vital Statistics and Registration of Births and Deaths) .. 50, 141, 155, 178, 179, 193
Infectious Diseases in Dar-es-Salaam .. 151
,, ,, Table of, for 3 years .. 134, 135
Infective Diseases .. 37, 41-50

PAGE.
Influenza .. 133
Injuries .. 37
Insecta .. 37
Inspections .. 13
Intestinal Parasites (*see* Helminths) .. 38, 42, 136, 137, 184, 206
Intoxications .. 37
Invalidings of Medical Staff .. 7
,, ,, Officials, Asiatic .. 25-29
,, ,, ,, European .. 17-20

K.

Kahn Test for Syphilis and Yaws .. 202
King's African Rifles, health of .. 30-33

L.

Labour, plantation .. 38, 39
,, prison .. 39, 40
,, recruiting of .. 38
Laboratory, Bacteriological, report of Director .. 197-210
,, Staff, Buildings, Equipment, Experimental Animals, Revenue .. 197-199
Leave, members of Staff on .. 7, 8
Legislation during 1924 .. 12, 13
Leprosy .. 139, 153
,, at Dar-es-Salaam .. 153
,, report on treatment .. 153
Library, Medical .. 12
Locomotion, diseases of .. 37
Loss of weight of prisoners .. 39
Lunatic Asylum, report of Superintendent .. 128-130
Lymphatic System, diseases of .. 37

M.

Malaria .. 14, 43, 137, 138
,, blood examinations in .. 199, 200
,, cerebral .. 209
,, at Dar-es-Salaam .. 147, 158
,, in native children .. 158
,, and Meteorology (graph.) .. 211
,, morbidity due to .. 21
,, prophylactic measures .. 14, 15
Malformations .. 37
Malignant disease .. 93-96
Maternity and Child Welfare .. 15, 156
Measles .. 43
Medical Inspection of School Children .. 157
Medical Practitioners, registration of .. 14
Medical Stores .. 13
Medico Legal cases .. 208-209
Meteorological Return, Dar-es-Salaam .. 176, 210
Meteorology, Tanga .. 183
Milk Analysis .. 207
Morogoro Prison .. 39, 40
Mortality, Infantile .. 48, 141, 156, 178, 179, 193
Mosquitoes, breeding places of, in Dar-es-Salaam .. 142-146
,, collection of, in Dar-es-Salaam .. 147-149
Museum .. 159
Mumps .. 43
Mwanza, Sleeping Sickness in .. 138

N. PAGE.

Natives, deficiency diseases .. 38
,, health of, in 1924 .. 30-33, 36-50, 98-127
Native District Sanitary Inspectors .. 50
Natives, population census, 1921 .. 134, 135
Nervous diseases .. 37
Non-official European, deaths of .. 24

O.

Officials, Asiatics, sick, invalidings and deaths .. 27-29
,, European, causes of deaths of .. 15
,, ,, invalidings of .. 16
Operations, Surgical .. 93-96
Ornithodorous moubata .. 44

P.

Plague .. 43, 149
Poisons, Tetradon poisoning .. 24, 37, 41, 209
Police, report on health of, native .. 34, 35
Port Work .. 158
,, ,, quarantine, re .. 132
Propaganda .. 159
Prisoners and Prisons .. 36, 39-41, 98-127
Public Health .. 37-50
,, Latrines .. 193
Public Works Department, work undertaken by .. 13
Pus, examination of .. 205

Q.

Quinine, issues .. 15
,, prophylaxis .. 14, 15, 43

R.

Rabies .. 43
Rat catching .. 149, 210
,, examination .. 210
Recommendations .. 50
Refuse, disposal .. 154
Registrations of Births and Deaths .. 24, 193
,, ,, Druggists .. 14
,, ,, Medical Practitioners and Dentists .. 14
Relapsing Fever (Tick) .. 43, 131, 150, 200
Respiratory System, diseases of .. 37
Revenue, Medical and Sanitary .. 12

S.

Sanitation Officer, Senior, Annual Report of .. 132
,, ,, ,, Recommendations for Future Work .. 192
Sanitary engineer .. 43
,, inspectors, Native, training of .. 159
Sanitation, rural .. 193
,, urban .. 140, 141, 181, 182, 186-192
Sanitary Staff, distribution of .. 132
Schistosomiasis .. 42, 184
School children, Medical Inspection of .. 141, 185
,, Latrines .. 193
Scientific .. 131
Seven-day Fever .. 44

PAGE.

Sewage disposal at Dar-es-Salaam .. 154
Sick, Invaliding and Death Rates .. 15, 16
Skin, diseases of .. 37
Sleeping Sickness .. 42, 44, 138, 139, 201
,, ,, Kigoma area .. 44, 138
,, ,, Liwale-Kilwa area .. 44, 139
,, ,, Mwanza area .. 44, 138, 139
,, ,, Ufipa-Tabora area .. 44, 138, 139
Small-pox .. 133, 152, 213
,, Lymph, Manufacture .. 211-213
Spirillum Fever .. 43, 131, 150, 151
Sputum, examination of .. 205
Staff, acting appointments .. 6
,, agreements expired .. 7
,, ,, terminated .. 7
,, authorised .. 5
,, ,, shortages on .. 5
,, deaths amongst .. 7
,, disposition of Staff .. 9, 10
,, invalidings .. 7
,, leave of absence .. 7, 8
,, new appointments to .. 6
,, promotions .. 7
,, resignations .. 7
,, retirement from .. 7
,, transfers .. 7
Syphilis .. 49

T.

Tables, Deaths, European General Population .. 24
,, Sick, Invaliding and Death Rates, European Officials .. 17
,, ,, ,, ,, ,, ,, by districts .. 18-20
,, ,, ,, ,, ,, ,, Asiatic Officials .. 26
,, ,, ,, ,, ,, ,, by districts .. 27
,, Morbidity rates for Malaria and Blackwater Fever, Dar-es-Salaam .. 21
,, ,, rates for Malaria and Blackwater Fever, Tanga .. 23
,, ,, rates for Malaria and Blackwater Fever, Tabora .. 22
,, Report on Health of Police, by districts .. 34, 35
,, ,, ,, ,, ,, Prisoners, by districts .. 36
,, Operations, Surgical .. 93-96
,, Total number of fresh cases, In-patients and Out-patients, for all Diseases .. 51-65
,, Summary of cases, In and Out Patients, by denominations .. 66
,, Return of Diseases and Deaths, In-patients and Out-patients .. 67-72
,, Return of Diseases, In and Out-patients, by districts .. 73-92
Tabora, morbidity due to Malaria and Blackwater Fever, Officials .. 22
,, Sick Rates of European Officials .. 17-20
Tanga, Anti-Mosquito Work .. 179, 180
,, Ankylostomiasis .. 181
,, Drainage .. 179
,, Morbidity due to Malaria and Blackwater Fever : Officials .. 23, 180
,, Meteorology .. 183
,, Report, Annual Sanitation of, M.O.H. .. 178-189
,, Routine Sanitary Work .. 181, 182, 186-189
,, Small-pox .. 178, 181
,, School Children, Health of .. 184
,, ,, ,, Inspection of .. 185
,, Sick Rates of European Officials .. 18, 29
Tetanus .. 154
Tick Fever (*see* Spirillum Fever) .. 43, 131, 150, 151
Town Planning .. 14
Township Authorities .. 160
,, Rules, 1923 .. 141
Tree Cutting .. 161
Tryparsamide .. 44, 139
Trypanosomiasis .. 44, 46, 138, 139
,, Blood Examinations .. 201
Tsetse Fly .. 193

PAGE.

Tuberculosis .. ~~44,~~ 151
,, Sanatorium Treatment .. 44-46
Tumours .. 37, 95, 96
Typhoid Group, Agglutinations .. 201

U.

Urinary System, diseases of .. 37, 41
Urine, examination of .. 204

V.

Vaccination Returns .. 133, 136, 152, 158
Vaccines, Antogenous .. 207
Vaccine, Lymph .. 211-213
Venereal Diseases in Bukoba District .. 50
Venereal Diseases .. 49, 50
Vital Statistics .. 155, 178
Vitamine Deficiency (*see* Deficiency Diseases, Food) .. 38-43, 214, 215

W.

Wassermann and Flocculation Test .. 202
Water Supplies, Extension of .. 38, 50, 192
Water Supply, Dar-es-Salaam .. 155
Water Analysis, Bacteriological .. 210
,, ,, Chemical .. 209, 210, 215, 216

Y.

Yaws .. 46-50, 131, 154
,, Treatment with Bismuth Sodium Potassium Tartrate .. 46, 47, 131

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OFFICE OF THE
DIRECTOR OF MEDICAL AND SANITARY SERVICES,
DAR ES SALAAM,
TANGANYIKA TERRITORY.

22nd September, 1926.

Sir,

I have the honour to submit, for the information of His Excellency the Governor and for transmission to the Right Honourable the Secretary of State for the Colonies, the Medical Report on the health and sanitary condition of the Tanganyika Territory for the year 1925 together with the Returns, etc., appended thereto.

I have the honour to be,
Sir,
Your obedient servant,

J. O. SHIRCORE,

Director of Medical and Sanitary Services,
Tanganyika Territory.

THE HONOURABLE
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CONTENTS.

PAGE

I. ADMINISTRATION.

(a) Staff ... 1-3
(b) List of Ordinances affecting public health enacted during the year ... 3-4
(c) Financial ... 4

II. PUBLIC HEALTH.

(a) General Remarks ... 4
(I) General Diseases ... 4-9
(II) Communicable Diseases ... 9-13

(b) Vital Statistics.

(1) General Native Population ... 13
(2) General European Population ... 13
(3) European Officials ... 14
Table shewing the Sick, Invaliding, and Death Rates of European Officials ... 16
(4) Asiatic Officials ... 15
Table shewing the Sick, Invaliding, and Death Rates of Asiatic Officials ... 17

III. HYGIENE AND SANITATION.

a) General Review of Work done and progress made ... 21
(I) Preventive Measures ... 21
Mosquito and insect-borne Diseases ... 21-31
Epidemic Diseases ... 24
Helminthic Diseases ... 30
(II) General Measures of Sanitation ... 31
Reports of Medical Officers of Health ... 41-74
(III) School Hygiene ... 33
(IV) Labour Conditions ... 33
(V) Housing and Town Planning ... 34
(VI) Food in Relation to Health and Disease ... 34
(b) Measures taken to spread the knowledge of Hygiene and Sanitation ... 35
(c) Training of Sanitary Personnel ... 36
d) Recommendations for future work ... 40
IV. PORT HEALTH WORK AND ADMINISTRATION. 74
V. MATERNITY AND CHILD WELFARE. 74-75
VI. HOSPITALS, DISPENSARIES AND VENEREAL CLINICS. 76
Report on King's African Rifles ... 77
Report on Police ... 93
VII. PRISONS AND ASYLUMS AND ANNUAL REPORT OF LUTINDI LUNATIC ASYLUM. 79-92,94-96
VIII. METEOROLOGY. 97

IX. SCIENTIFIC.

Interesting Cases, etc. ... 97-117
Report of the Director of the Laboratory ... 118-125

RETURNS.

TABLE I.

Staff : Medical Staff and Principal Members of Subordinate Staff ... 126-130
Principal Changes ... 129

TABLE II.

Financial—Expenditure ... 130
Receipts ... 131

TABLE III.

Statistics : See separate items in index

TABLE IV.

Meteorological Return : See index

TABLES V & VI.

Return of Diseases and Deaths (In and Out Patients) for the year ... 132-142

TANGANYIKA TERRITORY.

Annual Medical and Sanitary Report 1925.

SECTION I.—ADMINISTRATIVE.

(a) Staff.

European:

Director of Medical and Sanitary Services.
Deputy Director of Medical Services.
Deputy Director of Sanitary Services.
Director of Laboratory.
2 European Clerks (1 appointed during the year).
33 Medical Officers.
2 Dental Surgeons (1 appointed during the year).
1 Assistant Bacteriologist.
1 Entomologist (appointment created during the year, but not filled).
4 Senior Nursing Sisters (2 appointed during the year).
1 Sister and Health Visitor (appointed during the year).
22 Nursing Sisters (5 appointed during the year).
1 Laboratory Assistant.
1 Chief Clerk (appointed during the year).
2 Clerks (1 appointed during the year).
1 Storekeeper.
2 Assistant Storekeepers.
2 Hospital Quartermasters (appointed during the year).
1 Superintendent, Lutindi Asylum.
1 Matron, Lutindi Asylum.
1 Building Inspector (appointed during the year).
12 Sanitary Superintendents (4 appointed during the year).

Asiatic:

1 Assistant Surgeon.
2 Senior Sub-Assistant Surgeons.
37 Sub-Assistant Surgeons (15 appointed during the year).
28 Compounders (10 appointed during the year).
2 1st Grade Clerks.
8 2nd, 3rd and 4th Grade Clerks (2 appointed during the year).
3 Sanitary Inspectors.

African:

7 Clerks
13 Dispensers.
22 African Urban Sanitary Inspectors.
50 African District Sanitary Inspectors.
27 Vaccinators.
392 Hospital Dressers, Hospital Attendants and Menials.
A varying number of Sanitary Labourers.

APPOINTMENTS.

The following appointments, promotions, changes, etc., were made during the year:—

Europeans:—

Dr. P. A. Clearkin (1st Assistant Bacteriologist, Kenya) to be Director of Laboratory, 30th September, 1925.
Dr. J. F. Corson to be Assistant Bacteriologist, 8th January, 1925.
Dr. D. V. Latham to be a Medical Officer, 5th January, 1925.
Dr. T. Langan to be a Medical Officer, 8th January, 1925.
Dr. H. Fairbairn do. do.
Dr. J. Williamson do. 24th January, 1925.

APPOINTMENTS—*Contd.*

Dr. C. R. Steel to be a Medical Officer, 24th January, 1925.
Dr. W. H. Dye do. 18th April, 1925.
Dr. J. W. Graham do. 30th April, 1925.
Dr. R. C. Speirs do. do.
Dr. J. C. R. Buchanan do. 7th August, 1925.
Dr. H. J. O'D. Burke-Gaffney do. do.
Dr. J. S. Armstrong do. do.
Dr. R. Mackay do. do.
Dr. B. O. Wilkin do. do.
Dr. A. McKenzie do. 20th August, 1925.
Dr. I. Sanderson do. do.
Dr. G. S. P. Noble do. do.
Dr. L. A. Willmott do. do.
Mr. A. S. Newton to be a Dental Surgeon, 4th September, 1925.
Miss D. A. Porter to be a Nursing Sister, 19th February, 1925.
Miss O. Borrett do. 5th March, 1925.
Miss I. D. McDonald do. 10th July, 1925.
Miss M. C. L. Mapp do. 20th August, 1925.
Miss E. B. Crichton do. do.
Miss A. L. Ryder do. do.
Miss L. M. Bishop do. do.
Miss C. M. Bishop do. do.
Miss M. Kay do. 27th November, 1925.
Miss M. E. Fraser do. do.
Miss M. D. White do. do.
Miss J. B. Watt do. do.
Mr. P. W. Morgan to be a Building Inspector, 18th March, 1925.
Mr. H. L. Bolton to be a Sanitary Superintendent, 16th May, 1925.
Mr. C. Harlen do. 7th August, 1925.
Mr. A. Hume do. 4th September, 1925.
Mr. A. L. George do. 17th September, 1925.
Mr. H. J. Rance do. 25th November, 1925.
Mr. J. E. Crawley to be a Hospital Quartermaster, 7th August, 1925.
Mr. R. Kildea do. 4th September, 1925.

Asiatics:—

Mr. Dewan Singh to be a Sub-Assistant Surgeon, 29th April, 1925.
Mr. G. V. Godbole do. 24th June, 1925.
Mr. V. S. Nijasure do. do.
Mr. Harbal Singh do. do.
Mr. G. A. Mhaiskar do. 8th July, 1925.
Mr. N. B. Tote do. do.
Mr. S. E. Puram do. do.
Mr. G. V. Sane do. 22nd July, 1925.
Mr. Maluk Singh do. do.
Mr. Ram Singh do. do.
Mr. P. N. Nair do. 11th November, 1925.
Mr. J. B. Nathan to be a Compounder, 5th April, 1925.
Mr. S. L. Dourado do. 24th July, 1925.
Mr. P. F. X. Pimento do. do.
Mr. J. X. E. Gomez do. do.
Mr. F. Lopez do. do.
Mr. C. Vaz do. do.
Mr. A. R. de Silva do. do.
Mr. P. J. A. Falcon do. do.
Mr. P. A. Pacheco do. do.
Mr. C. K. Narayanan to be a 4th Grade Clerk, Director of Medical and Sanitary Services' Office, 22nd July, 1925.

Acting Appointments.

Dr. J. F. Corson, Acting Director of Laboratory from 19th February to the end of the year.
Dr. C. F. Shelton, Acting Senior Medical Officer from 6th December to the end of the year.
Dr. R. Nixon, Acting Sanitation Officer whole year.
Dr. A. I. Meek, do. from 27th March to the end of the year.
Dr. A. R. Lester, do. from 12th April until 13th November.
Dr. A. McKenzie do. from 19th September to the end of the year.
Dr. R. Mackay, do. from 19th September to the end of the year.
Mr. H. W. Hassard, Acting Medical Storekeeper from 1st December to the end of the year.

Promotions.

Europeans:—

Dr. J. H. Thomson, Medical Officer, to be Senior Medical Officer, 1st August, 1925,
Mr. J. L. Mason, Clerk, Medical and Sanitation Department, to be Chief Clerk, 1st April, 1925.
Miss E. L. Kemsley, R.R.C., Nursing Sister, to be a Senior Nursing Sister, 1st April, 1925.
Miss E. Bishop, Nursing Sister, to be a Senior Nursing Sister, 1st April, 1925.
Miss B. G. Allardes, Nursing Sister, to be a Sister and Health Visitor, 1st April, 1925.
Mr. W. H. Jones, Sanitary Superintendent, to be an Assistant Medical Storekeeper, 6th February, 1925.

Retirements.—Nil.

Agreements Expired.

Mrs. M. A. Cartlidge, Nursing Sister, 3rd September, 1925.

Agreements Terminated.—Nil.

Resignations.

Miss M. E. Shearing, Nursing Sister, 13th July, 1925.

Deaths.—Nil.

Invalidings.—Nil.

(b) List of Ordinances affecting Public Health enacted during the year.

During the year the following Enactments, Rules, and Notices, which have a bearing on medical matters, were gazetted:—

Government Notice No. 1—Under the Townships Ordinance, 1920 (No. 10 of 1920). Proclamation No. 1 of 1925—proclaimed Sadani, Lipumba and Liwale, within the limits defined, as townships for the purpose of the Ordinance.

Government Notice No. 12—Under the Merchant Shipping (Fees) Ordinance 1922 (No. 36 of 1922)—conceded a reduction of fees in respect of the issue of Bills of Health:—

Ocean-going vessels other than dhows—Shs. 15 at each port of call.
Coasting-vessels other than dhows—Shs. 15 at first port on each voyage; other ports free.
(For this purpose a "coasting vessel" means a vessel plying only on the coasts of Tanganyika Territory, the Zanzibar Protectorate and the Kenya Colony and Protectorate).
Dhows—Shs. 5 at first port on each voyage; other ports free.

Government Notice No. 70—Under the Whipping Regulations of 5th October, 1918, as amended by the Whipping Ordinance, 1925, an order was promulgated cited as the Whipping Order, 1925. Under this Order a whipping may be inflicted upon the bare buttocks with a light rattan cane free from knots and not less than half an inch in diameter, the weight varying to a heavier or a lighter type according as to whether the subject is an adult or a juvenile. The cane replaced the hippopotamus hide lash hitherto used over a wet cloth, which was placed over the buttocks to prevent wounding of the skin, and the consequence was several complaints drawing notice to somewhat severe cutting of the skin due to whipping on the bare buttock. This has been remedied since and a wet cloth is spread prior to whipping.

Government Notice No. 73—under the Indian Lunacy Act (Act IV of 1912), see section 28—the Senior Administrative Officer for the time being in charge of the Tanga District, the Senior Medical Officer for the time being stationed at Tanga and the Medical Officer of Health, Tanga, were appointed to be visitors for the Asylum at Tanga.

Government Notice No. 76—under the Native Authority Ordinance, 1923 (No. 25 of 1923), section 6—empowers the District Authority to make regulations or to give an order that the birth of any native child within the jurisdiction of the Authority be reported to the headman or the Authority. The reporting of births and deaths is no new procedure, for monthly reports detailing deaths and births were submitted by the Akidas of Dar es Salaam and Tanga during the German regime. Statistics of births and deaths are supplied to us from Tabora and Tanga, but Dar es Salaam has been of little assistance. Data relating to births is of extreme importance in ralation to Maternity and Child Welfare Work, and the situation calls for action.

Government Notice No. 78—under the Master and Native Servants Ordinance, 1923 (No. 32 of 1923)—prohibited recruiting of natives in the Ufipa sleeping sickness area.

Government Notice No. 80—under the Prisons Ordinance, 1921 (No. 14 of 1921)—Dietary Table for Native Prisoners amended the Regulations published as Government Notice No. 171 of 1924 by substituting for the meat ration in Scale A the following ration: Meat with bones . . . 6 oz. per diem.

Government Notice No. 82 appointed officers, of similar standing to those appointed at Tanga, to be visitors at the Asylum at Tabora under the Indian Lunacy Act, 1912 (Act IV of 1912).

Government Notice No. 116—under the Masters and Native Servants Ordinance, 1923 (No. 32 of 1923), recruiting of natives, in the Tabora-Ufipa sleeping sickness or adjoining areas specified in the schedule, was prohibited.

(c) Financial.

Revenue	£6,425
Expenditure	£146,689

(See also Table II page 130).

SECTION II.—PUBLIC HEALTH.

(a) General Remarks.

This is the sixth Annual Medical Report of the Medical and Sanitation Department of the Tanganyika Territory. In the Annual Report for 1924 the incidence of disease and mortality was approached more directly from the perspective of preventive medicine and the diagrams introduced were intended to illustrate the text to that effect. The model form which we have been requested to follow has made it necessary to alter somewhat the previous arrangement, and the graphs now used are purposed to meet the subject from both points of view.

(I)—General Diseases.

Comparison with the figures contained in the 1924 Report cannot generally be made to any extent owing to the re-arrangement of diseases, under their various headings, being different to the old tables, but the table given immediately below provides such data as are available for comparison. The figures are shown as percentages of cases to total cases and deaths to total deaths.

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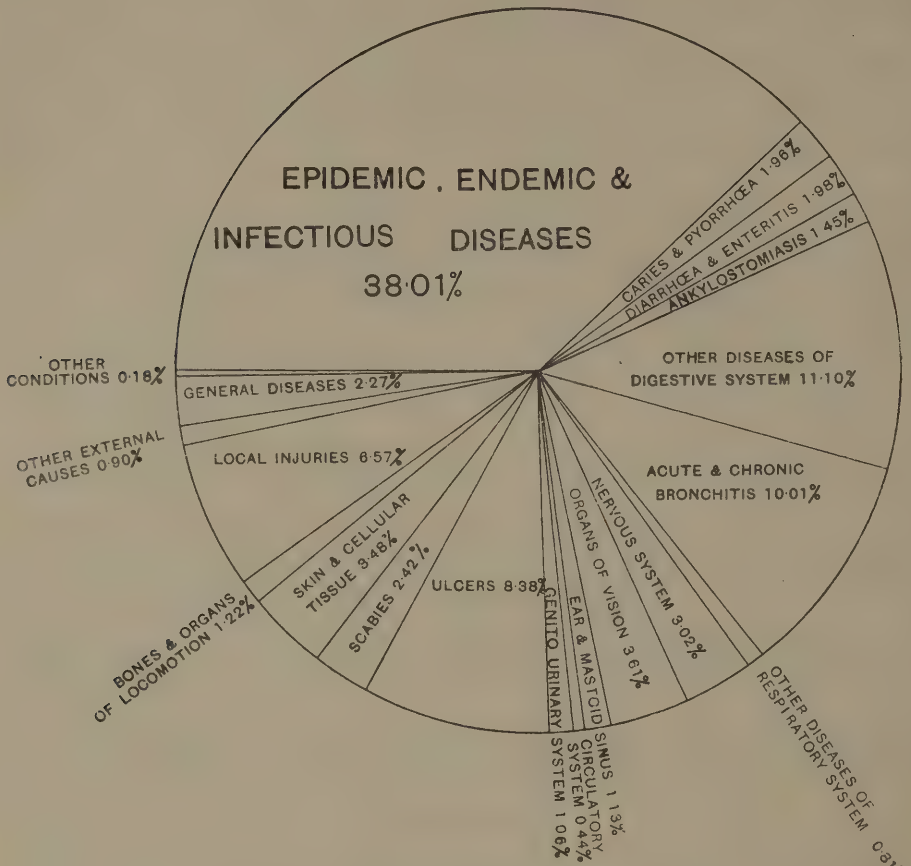
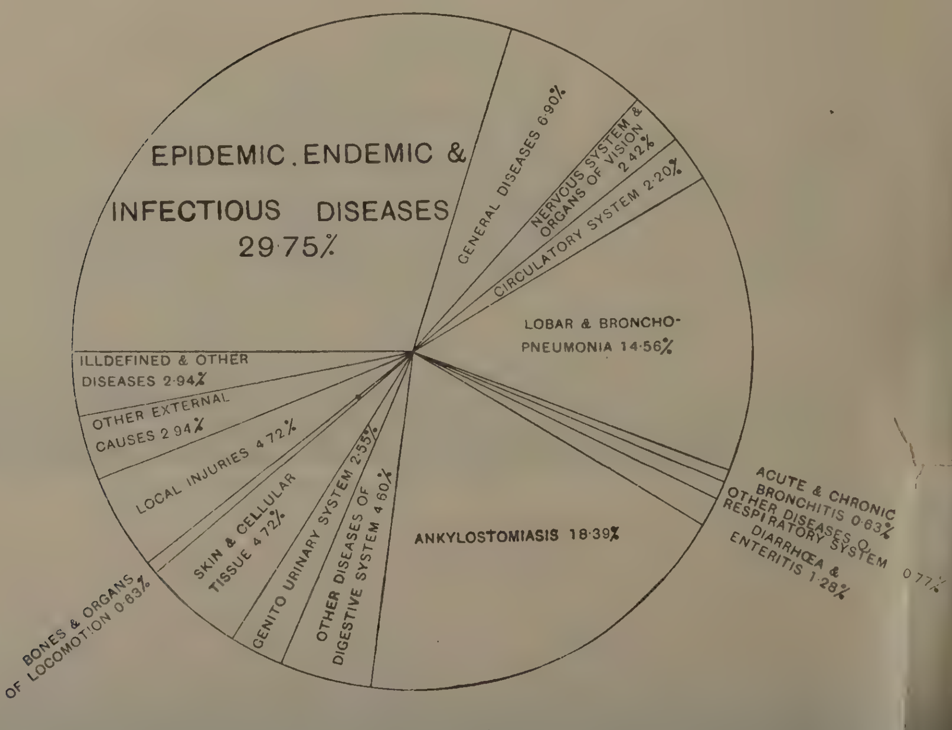
THE PROPORTION OF EPIDEMIC, ENDEMIC, INFECTIOUS, SYSTEMIC, AND OTHER DISEASES SHEWN AS PERCENTAGES OF TOTAL CASES TREATED AT HOSPITALS AND DISPENSARIES.



TOTAL INCIDENCE: 272.373



TOTAL DEATHS: 783

Diseases singly or grouped	1924	1925	
Nervous, Respiratory and Digestive Systems	27.10	30.33	Cases
Skin Diseases	15.84	14.28	,,
Of the Skin Diseases—Ulcers represented	63.90	58.04	,,
,, ,, Scabies ,,	20.04	17.09	,,
Epidemic, Endemic and Infectious Diseases, Diarrhoea, Enteritis, Digestive System and Ankylostomiasis	68.00	54.02	Deaths

TABLE SHEWING TOTAL CASES, PERCENTAGES OF GROUPS TO TOTAL CASES TREATED, DEATHS, AND PERCENTAGE OF DEATHS TO TOTAL NUMBER OF DEATHS.

GROUP	Cases	Percentage to total number of cases treated	Deaths	Percentage of deaths to total number of deaths
Epidemic, Endemic and Infectious Diseases	103,531	38.01	233	29.75
General Diseases	6,194	2.27	54	6.90
Diseases of the Nervous System	8,220	3.02	18	2.12
Diseases of the Organs of Vision	9,823	3.61	1	0.30
Diseases of the Ear and Mastoid Sinus ...	3,087	1.13	...	...
Diseases of the Circulatory System ...	1,199	0.44	17	2.20
Acute and Chronic Bronchitis	27,677	10.01	5	0.63
Lobar and Broncho-pneumonia	704	0.17	114	14.56
Other Diseases of the Respiratory System	1,094	0.64	6	0.77
Caries and Pyorrhoea	5,356	1.96	...	...
Diarrhoea and Enteritis	5,401	1.98	30	1.28
Ankylostomiasis	3,963	1.45	124	18.39
Other Diseases of the Digestive System ...	30,201	11.10	36	4.60
Diseases of the Genito-Urinary System	2,884	1.06	20	2.55
Ulcers	22,817	8.38	18	2.30
Scabies	6,599	2.42	...	...
Other Diseases of Skin and Cellular Tissue	9,464	3.48	19	2.42
Diseases of Bones and Organs of Locomotion	3,326	1.22	5	0.63
Local Injuries	17,921	6.57	37	4.72
Other External Causes	2,435	0.90	23	2.94
Undefined and Other Diseases	476	0.18	23	2.94
TOTAL ...	272,373	100.00	783	100.00

The general diseases form a small proportion of the total diseases treated, but in as much as anaemia, malignant diseases and food deficiency diseases are included under that heading the death rate is high.

The primary anaemias are seldom reported, but secondary anaemia must be regarded as widely prevalent—and is of course to be accounted for by the enormous mass of the infective diseases and helminthiasis. Since notice was brought to bear on malignant disease greater care has been devoted to the collection of cases, an account of several of which may be found under the heading "Scientific" on page 97.

Deficiency Diseases.—The grosser manifestations of deficiency diseases are fortunately not prevalent to any extent. Small outbreaks of Beri-Beri and Scurvy occasionally occur amongst the labourers at some of the plantations, but generally the standard of living has been improved and the incidence of the conditions mentioned is becoming more infrequent as time goes on. In my opinion the explanation is to be sought in the automatic adjustment that inevitably takes place when employers are forced to realize by the course of events that it is to their advantage to promote the welfare of their labourers by the provision of well-balanced dietary, improved housing, and sanitation.

The current diet scales which are of three categories are given below.

1. *Approved Diet Scales for Long Term Prisoners*:—

LONG TERM PRISONERS.

Meat with Bones	6 ozs per diem
Maize (whole)	18 ozs. ,, ,,
Beans	6 ozs. ,, ,,
Potatoes	8 ozs. ,, ,,
Ghee	½ oz. ,, ,,
Salt	¼ oz. ,, ,,
Lemons	2 per week.

1. Above weights are of uncooked foodstuffs.
2. Half a lemon to be issued on Sunday, Tuesday, Thursday and Saturday.
3. Where fish is procurable a ration of fish may be issued three days a week in lieu of meat.
4. Equivalent of potatoes—muhogo, bananas or sugar cane in equal weights.
5. If lemons not procurable—an issue of 8 ozs. green vegetables in lieu of half a lemon. If neither available the issue of beans should be germinated beans.

Relating to the above the following statistics for the four years 1922 to 1925 inclusive, are instructive, and 1925 shews the lowest percentage of deaths to the average and total number of prisoners hitherto obtained.

	1922	1923	1924	1925.
Number of Deaths	51	76	76	59
Daily average number of Prisoners during year	1570.38	1397.50	1736.60	1760.12
Total number of Prisoners during year	6605	7571	9947	9091
Percentage of Deaths to average number of Prisoners	3.65	5.36	4.31	3.30
Percentage of Deaths to total number of Prisoners	0.77	1.00	0.76	0.65

Of the 59 deaths only 9 were due to dysentery, colitis, or diarrhœa. There were 14 deaths due to pneumonia, and 7 to influenza, chiefly at Tabora and Tukuyu; and it is recommended that two blankets be allowed per prisoner during the warmer months and three during the cold season, at all prisons above an altitude of 3,000 ft.

Attention is drawn to the fact that the largest number of deaths at any one prison, namely 11 out of a total of 343 prisoners, took place at Tukuyu where the meat ration had not been strictly adhered to: and that Lindi, a station at which meat has not been available, released one prisoner on account of chronic diarrhœa and inanition, and had 6 deaths out of a total of 334 prisoners as compared with 7 deaths out of 501 at Dar es Salaam, 5 out of 1,065 at Mwanza and 7 out of 611 at Tabora.

In my opinion the adoption of the new ration scale including a daily supply of meat has been amply justified.

2. *Diet Scale for Plantation Labour, i.e.* labourers more or less permanently employed for a year or longer.

Maize or Mtama Meal	20 ozs. per day
Beans	3 ozs. ,, ,,
Salt	¼ oz. ,, ,,
Meat (4)	3 lbs. per week
Potatoes (1)	4 lbs. ,, ,,
Ground Nuts (2)	22 oz. ,, ,,
Sugar	1 lb. ,, ,,
Fresh Vegetables (3)	2¼ lb. ,, ,,

(1) May be replaced by muhogo or bananas.
(2) May be replaced by animal or vegetable fat, cotton seed, coconut or sim-sim oil.
(3) May be replaced by lemons, limes, oranges or tomatoes.
(4) Where fish is available a ration of fish, at the rate of 1 lb. of fish for 1 lb. of meat, may be issued, two days a week, in lieu of meat.

3. *Diet Scale for Unskilled Labour, i.e.*, temporary labour—mostly employed by the Railway and Public Works Department for short periods of time.

Maize or Mtama Meal	24 ozs. per diem
Meat	1 lb. twice weekly
Beans	4 ozs. daily
Ground nuts	2 ozs. ,,
Fresh Vegetables	1 lb. weekly
Salt	2 ozs. ,,

Where fish is available, an equal ration of fish may be issued two days a week in lieu of meat.

The question of vitamin deficiencies or acompletinoses is, however, of far wider application, relating as it does to a substantial proportion of the African population. There are extensive areas in which the inhabitants lack seriously the vegetables and foodstuffs requisite for the maintenance of individual well-being, growth, and the survival of the race. It is frequently recorded with regard to Sleeping Sickness that the incidence appeared to be enhanced due to a coincident famine. The Venereal Diseases Medical Officer noted recently that of a large number of cases of Yaws and Syphilis 75% made rapid improvement under treatment, but the remaining 25% did not; and from their condition he inferred that this was due not so much to the tenacity of the diseases but to the undernourished condition of the sufferers, whose entire diet for months if not years had been cassava. It is evident that the population as a whole in the regions occupied by the tsetse fly suffer from a lack of protein. There may be a few goats, sheep and pigs, but certainly no cattle, and our game laws prohibit the African from hunting game animals for food. It is recommended therefore that the game laws be relaxed, and means taken by closer administration, and by the distribution of seeds and cuttings to encourage the planting of vegetables and fruit, particularly tomatoes, as widely as possible. The breeding of sheep, pigs and goats (especially the latter, the milk of which may be utilised for the artificial feeding of infants who have lost their mothers or whose mothers are unable to nourish them) should be insisted upon by active propaganda, and facilities granted for transfers of these forms of stock to fly-infested areas. Financial aid relating to this important subject might with advantage receive consideration.

Nervous and Mental Diseases.—Following on the treatment of Epilepsy by Dr. McNaughton with Bismuth Sodium Tartrate, the Superintendent of the Lunatic Asylum at Lutindi was instructed to try the method. His results are interesting and demonstrate that certain types of mental disorder are ameliorated; but the figures are not yet comprehensive enough for inclusion in this report.

Diseases of the Eye.—Apart from small-pox, syphilis, gonorrhœa, and traumatic agency, the bulk of eye cases consist of conjunctivitis; and this chiefly amongst children. The Welfare Clinics are already doing useful work in this direction Cataract is fairly common and is found mostly in the sandy-soil, glary, exposed regions of the Territory. The water in most of these parts is scanty and brackish and obtained from surface wells, and calculus of the urinary bladder is not uncommon.

Diseases of the Circulatory System.—Whilst disease of the circulatory system is not perhaps as rare as might be thought from the returns, it certainly is a matter for consideration as to the reason why aneurysm is not as frequent amongst the African population as the European. Syphilis is extensive in some areas and porterage must throw a great strain on the heart and aorta, yet few cases of aneurysm are recorded. Personally I have only seen one case in 19 years in an African to four cases in 10 years in Europeans.

Diseases of the Respiratory System.—This is an important group both as regards incidence and mortality. Respiratory affections supply 10.82% of the total cases treated, of which Acute and Chronic Bronchitis account for 10.01% and no less than 14.56% of the total deaths are due to Lobar and Broncho pneumonia. Ill-ventilated, unhygienic dwellings and surroundings, fatigue, lack of nourishing food, scanty clothing and exposure, such as a large number of Africans experience at the higher attitudes, are the main contributing factors towards this mortality. The question of occupational respiratory conditions in relationship to cotton and sisal ginneries will require examination shortly.

Diseases of the Digestive System.—Except for the Epidemic, Endemic and Infectious diseases, those of the Digestive sytem return the largest number, 44,921 cases have been recorded, 16.49% of the total cases. Of this figure 5,356 were due to caries and pyorrhœa, 12,844 were cases of constipation probably due to dietetic error or low rations. Diarrhoea and Enteritis gave 5,401 cases, Ankylostomiasis 3,963 and Roundworm 4,048—practically all due to ignorance of hygiene and lack of sanitation.

Diseases of the Skin and Cellular Tissue.—Ulcers play the predominant part under this heading and shew 22,817 cases. Besides trauma, syphilis and yaws are powerful predisposing if not actual causes.

Under *Diseases due to external causes*: 17,921 cases were due to Local Injuries of which 37 died; how far these figures can be correlated with industrial occupation is not known at present.

Surgical Operations, 1925.

BONES, OPERATION:	
Skull, fracture of	3
Fractures, simple	23
Fractures, compound	12
Operations for reduction of fractures.	3
Osteotomy	1
Osteectomy	8
Resection, others	2
Others (unclassified)	7
CHEST, OPERATIONS ON:	
Breast abscess, incision of ...	2
Breast, excision of	2
Thoracotomy	3
LAPAROTOMY:	
Abdomen, penetrating wound of	2
Abscess of liver, laparo-hepatotomy	2
Appendectomy with local peritonitis	3
Appendectomy with general peritonitis	2
Exploratory	1
Pan-hysterectomy	1
Intestinal obstruction ...	2
Ovarian cystectomy	1
Paracentesis abdominalis ...	1
Others (including unclassified)	5
OBSTETRICAL:	
Abortions	1
Births, forceps operations ...	5
Births, abnormal presentations	1
Repairs of perineum	6
Others (including unclassified) ...	5
Carried forward	104
Brought forward	104
GENITO-URINARY TRACT:	
Circumcisions	127
Curettage of uterus	8
Cystotomy for calculus	3
Haematocele	2
Hydrocele, single, radical cure ...	134
Haematoma	6
Orchidectomy	5
Penis, Operations on	1
Scrotum operations ...	1
Vaginal operations	1
Urethrotomy, internal	1
Urethrotomy, external	2
Others (including unclassified) ...	28
HERNIOTOMY:	
Inguinal, single	77
Strangulated	1
Others (including unclassified) ...	1
ADENECTOMY:	
Cervical	4
Femoral	1
Inguinal, single	4
Others (including unclassified) ...	1
AMPUTATIONS:	
Hand	5
Arm	13
Leg	16
Foot	4
Digit	37
Penis	1
Thigh	5
Carried forward	593

SURGICAL OPERATIONS 1925—*Contd.*

Brought forward	593
JOINTS, OPERATIONS ON:	
Arthrectomy	3
Reduction of dislocation	10
Others (including unclassified) ...	13
MUSCLES AND TENDONS, OPERATIONS ON:	
Others (including unclassified) ...	4
EAR, OPERATIONS ON:	
Mastoid operations	2
Removal of foreign bodies ...	2
EYE, OPERATIONS ON:	
Cataract, extraction of	17
Enucleation	8
Lid operations	2
Pterygium, transplantion of	1
Removal of foreign body ...	4
Others (including unclassified	2
NOSE AND THROAT, OPERATIONS ON:	
Removal of polypi	1
Tonsillectomy	3
Tracheotomy	2
Others (including unclassified) ...	324
Carried forward	991
Brought forward	991
RECTUM, OPERATIONS ON:	
MISCELLANEOUS:	
Abscess, treatment of	303
Cysts	12
Elephantiasis, treatment of ...	65
Fistulous tracts	8
Lumber puncture	3
Neoplasm, excision of benign	39
Neoplasm, excision of malignant	14
Plastic operations for congenital defects.	1
Removal of foreign body	2
Skin graft	22
Tooth extractions...	499
Ulcers, treatment of	106
Varicose veins, treatment of	1
Wounds, gunshot	3
Wounds, others	92
Various other minor operations ...	1
Others (including unclassified) ...	36
Total	2,198

(II)—COMMUNICABLE DISEASES.

Anthrax.—There were 27 cases, 1 at Arusha and 26 at Singida—both are endemic areas.

Cerebro-Spinal Meningitis.—A total of 8 cases with 4 deaths. This occurred chiefly at Musoma, Mwanza and Tanga, which appear to be endemic foci and supply cases every year.

Chicken-Pox.—308 cases. Small numbers of cases occurred in the Dodoma and Arusha districts throughout the year and from these foci Kondoa-Irangi, Moshi, Tabora and Kigoma were apparently infected during the last quarter.

Dengue.—The irregular incidence of Dengue during the last two years at Dar es Salaam leads one to premise the probability of an intermittent introduction from an outside source and the experience of Dr. Sannemann, the Port Medical Officer at Hamburg, who writes as follows, "Dengue has appeared frequently during the last year, almost exclusively in ships from India. 124 cases were reported and probably many cases labelled influenza should have been included. The cases came from 14 steamers with a total complement of 916, so that about 14 per cent of the crews were affected," suggests that the infective centre for the East African ports might be Bombay. Steps are being taken to investigate this matter.

Diphtheria.	1923	1924	1925
	—	1	—

Dysentery.—See Deputy Director of Sanitary Services report page No. 21.

Encephalitis Lethargica.—Nil.

Enteric Fever.—See Deputy Director of Sanitary Services report page No. 21.

Glanders.—Nil.

Malaria and Blackwater Fever.—Excepting Yaws, Malaria shews the largest return of any other disease. During 1924 there were 22,732 cases as compared with 27,277 during 1925, an increase of 5,455, which may be accounted for by the greater total rainfall, which was abnormally heavy during the latter months of the year, and the increase in population of the larger townships. It is not surprising therefore that the figures for Blackwater Fever have been augmented.

	Cases	Deaths
1921	42	7
1922	47	4
1923	35	7
1924	30	5
1925	52	15

The two stations that demand most attention are Dar es Salaam, 17 cases, and Tabora, 10 cases, where important drainage work is still pending, and which should, if possible, not be longer delayed.

Mumps.	1923	1924	1925
	92	165 with 1 death	46

Plague.—See Deputy Director of Sanitary Services report page No. 24. No cases occurred in the Singida district which might be regarded as satisfactory. It is advocated in view of the persistency of outbreaks at and near Musoma that early measures be taken to protect Mwanza, between which port and Musoma there is regular shipping and dhow traffic. Mwanza, the future terminus of the railway which will link up this potential plague area with Tabora and the Central Line, should be safeguarded and proper rat-proof stores for produce and hides constructed at an early date, otherwise we run a permanent risk of introducing and establishing Plague at some of our most important centres. The Township of Tabora has a population of over 24,000 and the Tabora Province with its activities relating to cotton production lays the whole area prone to almost unlimited extension should plague be introduced. Shipping touching at Mwanza should not be permitted to berth alongside the pier after dark, and before it is sufficiently light in the morning. Mwanza experienced a devastating epidemic not many years ago; it has always presented itself to my mind as the most menacing point in the Territory and I am conscious of a persistent feeling of apprehension as time goes on. To put it plainly it is considered that, until orthodox measures are taken, we are gambling.

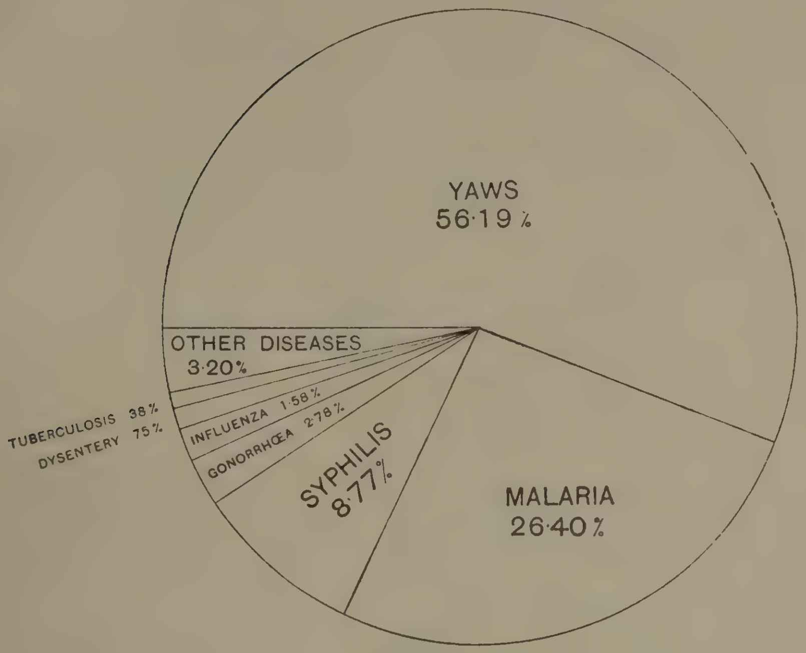
Relapsing Fever.—See Deputy Director of Sanitary Services report page No. 23.

1923	1924	1925
119	148	256 cases

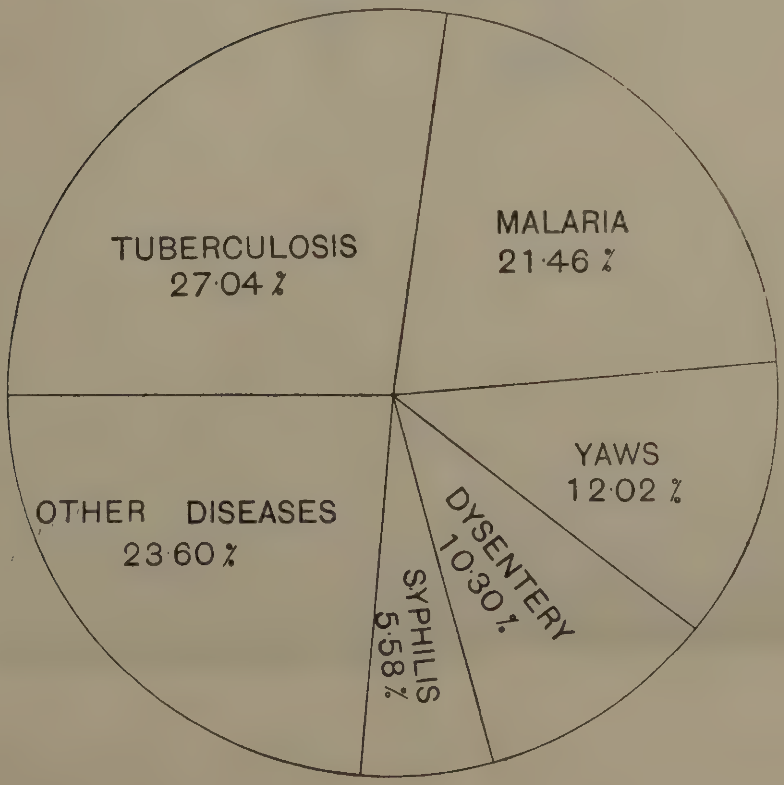
Neosalvarsan and Mercurochrome are available at all the central medical stations, both of which drugs possess specific effect in almost equal degree.

Trypanosomiasis.—See Deputy Director of Sanitary Services report page No. 22. The measures adopted, namely the segregation and the treatment of cases with the latest remedies, the evacuation of natives from thickly infested glossina areas and settlement in open fly-free or cleared country, suitable clearing of bush and scrub

PROPORTION IN PERCENTAGES OF EPIDEMIC, ENDEMIC AND INFECTIOUS DISEASES, IN AND OUT PATIENTS, TREATED AT HOSPITALS AND DISPENSARIES



TOTAL INCIDENCE: 103,531



TOTAL DEATHS. 233

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along lines of communication, and the extension of agriculture, which latter it is hoped to expand with the aid of an Agricultural Officer and Inspectors, have begun to bear fruit. In my opinion we have got over the worst of the situation and a definite change for the better should be evident within the next two years.

Tuberculosis. See Deputy Director of Sanitary Services report page 26. The Moshi district still awaits investigation, I have for sometime past formed the impression that Phthisis has a firm hold on the Wachagga, and recent reports have strengthened this view (See also the Annual Medical Report for 1924, page 46).

VENEREAL DISEASES AND YAWS.

Yaws.—The treatment of Yaws with Bismuth Sodium Tartrate has made satisfactory progress.

The following is a comparative statement of cases treated during the last five years.

1921	1,109
1922	3,123
1923	3,616
1924	20,714
1925	75,689
Total	104,251

During 1924 there were 34 treatment centres which, including travelling clinics, were expanded to 55 by the end of 1925. Whilst it is evident that Yaws is distributed extensively throughout the Territory there appear to be certain areas in which the density is markedly lower than in others. The coastal districts of Bagamoyo, Pangani and Tanga to the north of Dar es Salaam shew a lower rate than the districts of Utete, Kilwa and Lindi to the south, of which Utete shews the greatest density. There is also an irregularly shaped area comprising the plateau highlands of Iringa, Tabora (north of the Ugalla river) and Dodoma, wherein the incidence is low. Arusha and Mbulu shew a moderate infection rate, Moshi and Usambara somewhat greater, whereas Tukuyu (especially the low lying regions lying between Lake Nyasa and the hills), Mwanza and Bukoba to the east, south and west of Lake Victoria, the region between Bukoba and the northern portion of the Kigoma district and Kahama, the sub-district of Tabora, are heavily infected: also, although to a lesser degree, Kondoa-Irangi and the population in the vicinity of Mkalama.

The population between the shores of Lake Tanganyika and the foothills of the Ufipa Plateau are likewise heavily infected.

Of the total figure of 75,689 cases, 4,688 were treated on our behalf, with Bismuth supplied by us, by Dr. Janet Murray (U.M.C.A. Tanga,) Miss F. Smith (U.M.C.A. Masasi) and Mrs. Draper (L.M.S. Abercorn) to whom my thanks are due. District Officers have been of great assistance but my grateful acknowledgments are more particularly due to Mr. F. J. Bagshawe, Kondoa-Irangi, Mr. Kenny-Dillon, Mkalama, and Mr. C. W. Morgan, Utete, whose personal interest and energies have resulted in large numbers being treated. Indeed, Mr. Morgan on occasion, when the influx of patients has been overwhelming, has himself helped in giving the intramuscular injections. It is estimated that there are yet seven to eight hundred thousand to be treated and concerted effort to have more cases brought in for attention at the different centres in other districts would result in considerable reduction of this scourge. Our present organisation is capable of dealing with approximately 100,000 a year and we hope to work at an accelerated rate during 1926. An appeal is therefore made to those in a position to help to take up this matter seriously and if this is done the elimination of Yaws should be nearly accomplished during the next six years. Evidence is accumulating of the occurrence of paraframbœsial nervous conditions, similar to General Paralysis of the Insane and Tabes Dorsalis, which clear up after a short course of Bismuth in quantity much less than is required for syphilitic lesions.

TABLE OF YAWS AND SYPHILIS CASES TREATED (BY DISTRICTS).

	YAWS	SYPHILIS
ARUSHA	959	64
Mbulu	192	26
Kibaya	20	5
BAGAMOYO	796	59
BUKOBA	115	1,980
,, District	6,980	2,562
DAR ES SALAAM	4,529	690
Mafia	207	3
DODOMA	183	67
Manyoni	2	1
Singida	588	67
IRINGA	40	63
KIGOMA	920	218
Kasulo	271	72
Ujiji	491	156
KILWA	1,807	97
Kibata	120	39
Liwale—Sleeping Sickness Area	467	2
KONDOA-IRANGI	4,268	57
Mkalama	2,112	14
LINDI	4,784	28
Mikindani	3,799	264
Tunduru	61	10
*Masasi	2,584	...
LUSHOTO	106	116
MAHENGE	1,263	69
,, District	68	...
MOROGORO	694	612
Kilosa	547	175
Kisaki	121	138
MOSHI	3,402	461
,, District	32	...
MWANZA	2,692	1086
Maswa	4	...
Musoma	736	1,129
NAMANYERE	101	46
Kasanga	420	47
*Kasanga	1,007	...
PANGANI	479	67
Handeni	1	16
SONGEA	1041	265
TABORA	266	241
Nzega	360	179
Negezi	85	16
Kahama	298	47
,, District	1,404	85
Shinyanga	175	70
TANGA	631	267
*Korogwe	254	...
*Msalabani	843	...
TUKUYU	355	83
Mwaya	4,548	32
Utete	12,781	38
,, District	4,680	...
TOTAL	75,689	11,829

*Cases treated on our behalf by Missionary medical staff with Bismuth Sodium Tartrate supplied by us.

Syphilis has hitherto been dealt with on the same lines as in the treatment of Yaws.

It is more resistant to bismuth in the ratio of about 4 :1, namely it requires 3 to 4 times the quantity of bismuth for a so-called cure—that is the entire absence of active signs and the general recovery in health of the patient.

In view of the findings reported by Harrison, (see his article in the British Journal of Venereal Diseases Vol. II, No. 5, pages 19-29), the almost insuperable difficulty of inducing the African native to undergo prolonged treatment, and taking into account the numbers and distribution of cases over the extensive areas of the Territory, in my opinion we cannot do better than push the bismuth treatment—see also page 11 an annotation from a communication addressed to the Editor of the *Lancet*, on "The Treatment of Yaws and Syphilis in Tropical Africa," in which the therapeutic effect on syphilis and yaws of a new compound of Bismuth Sodium Tartrate and Soamin is also referred to. The Bukoba—Mwanza area shews the highest incidence. In the former district a special Venereal Diseases Medical Officer and a Senior Sub-Assistant Surgeon were detailed for itinerant treatment. The former, Dr. McNaughton, treated 1698 cases during four months before his departure on leave. Progress still continues as will be observed from the figures given below.

SYPHILIS.

	1921	1922	1923	1924	1925	Total.
Total cases treated ...	1,775	2,145	2,667	4,348	11,829	22,764.

Far from the African concealing infection, treatment with Bismuth, which is voluntary, has now assumed great popularity. Numbers of bedridden people crippled by the ravages of syphilis and yaws are carried fifty miles and more to the clinics.

Gonorrhœa.—On the advice of Dr. Andrew Balfour 50 grammes of Mercurochrome was sent out by the Colonial Office. Prior to this date we had already indented for 400 grammes. Supplies were distributed to Medical Officers and certain of the Sub-Assistant Surgeons for trial, among other diseases, in the chronic complications and sequelæ of this affection.

A circular was also issued detailing the dosage and procedure of treatment with Mercurochrome and Calcium Chloride. Facilities for douching for both male and female patients have been available at all the medical centres for several years.

Venereal inspections of troops, police and followers are conducted periodically.

(b) Vital Statistics.

(1) GENERAL NATIVE POPULATION:

Estimated population for the year—no recent census has taken place, the original figure obtained by the 1921 Census is 4,107,000. No statistics relating to Births, Deaths and Infant Mortality are available.

(2) GENERAL EUROPEAN POPULATION:

Acknowledgment is made to the Registrar-General of Births and Deaths for a return of the registered deaths which are summarised as follows:—

Puerperal Septicaemia and Pneumonia	2
Malaria	6
Blackwater Fever	7
Teething	1
Labour at Term—Embolism ...	1
Cerebral Embolism	1
Encephalitis	1
Cancer	2
Pneumonia	1
Asthma	1

Gunshot wound—accidental ...	1
Influenza	1
Diarrhœa and Vomiting ...	1
Illness unknown	1
Heart failure	1
Drowning—accidental	1
Alcoholism—heart failure ...	1
Pneumonia	3
Whooping Cough—Broncho-pneumonia	1
Amyotrophic Lateral Sclerosis	1

The deaths due to Malaria occurred at Arusha, Iringa, Lindi, Mahenge, Morogoro and Rungwe. Of the seven cases of Blackwater Fever, 1 occurred at Iringa, 3 among the Fathers at a Mission near Mahenge, 2 at Morogoro and 1 on the Rufiji Delta.

(3) EUROPEAN OFFICIALS:

Deaths —There were 6 deaths among European Officials, all of them being due to disease.

	1923	1924	1925
Malaria	1	1	1
Blackwater Fever	2	—	1
Pyrexia of uncertain origin	1	—	—
Appendicitis	1	—	—
Carcinoma	1	—	—
Accidental	—	2	—
Enteric	—	1	—
Double pneumonia	—	—	1
Heart failure supervening on appendicitis	—	—	1
Heart failure	—	—	1
Acute pyæmia	—	—	1
TOTAL ...	6	4	6

The cases of Malaria and Blackwater Fever were unfortunate. The former occurred at a long distance from the headquarters station Mahenge, and although the Medical Officer made a great effort to get to the patient at Mkasu his services were of no avail. Mkasu, which is situated upon a small hill practically surrounded on all sides by swamps, and becomes an island during the rainy season, has been abandoned. The Blackwater case occurred while the official was on tour in the Mikindani area. The Medical Officer, Lindi, was early on the scene but there appeared to be little hope from the beginning.

Invalidings.—13 European Officials were invalided during the year, as compared with 7 and 14 during the two preceding years:

	1923	1924	1925
Enteric fever	1	—	—
Dysentery (amoebic)	2	—	—
Malaria	1	1	—
Blackwater fever	1	1	—
Tuberculosis (pulmonary)	2	1	—
General debility	1	—	—
Neurasthenia	4	1	4
Delusional insanity	1	—	1
Exophthalmic goitre	1	—	—
Paralysis agitans	—	1	—
V. D. H.	—	1	—
Fracture of patella and septic knee joint	—	1	—
Intra-ocular haemorrhage	—	—	1
Delusions	—	—	2
Injury to leg (gunshot wound) ...	—	—	1
Tabes dorsalis	—	—	1
Melancholia	—	—	1
Symptoms pointing to renal calculus	—	—	1
Chronic recurring appendicitis ...	—	—	1
TOTAL ...	14	7	13

Of the invalidings 9 out of 13 were due to nervous conditions, of which there were three definite cases of insanity, which cases and the gunshot wound are responsible for the increase in the total number of days, and the average daily number, on the sick list. As regards the mental cases considerable delay took place in getting them home, chiefly attributable to the shipping authorities declining to accept them as passengers.

(4) ASIATIC OFFICIALS:

There were 11 deaths during 1925, as compared with 9 and 4 during 1923 and 1924 respectively, of which 5 were due to Blackwater Fever.

Deaths.	1923	1924	1925
Malaria	1	—	—
Blackwater fever	1	1	5
Pneumonia	1	1	1
Septicaemia	1	1	—
Smallpox	1	—	—
Tuberculosis	2	—	—
Fatty degeneration of heart	1	—	1
Alcoholism (acute)	1	—	—
Heart failure	—	1	—
Acute general peritonitis supervening on appendicitis	—	—	1
Tuberculous meningitis	—	—	1
Asthma and bronchitis	—	—	1
Typhoid fever	—	—	1
TOTAL ...	9	4	11

Invalidings.—8 Asiatic Officials were invalided during the year:—

	1923	1924	1925
Malaria	—	1	—
Tuberculosis	4	—	—
Pernicious anaemia	1	—	—
Diabetes	—	1	—
Hemiplegia	1	1	—
Paralysis	—	1	—
Neurasthenia	2	1	1
Chronic bronchitis	1	—	—
Physically unfit	—	1	—
Syphilis	—	1	—
Blackwater Fever	—	—	1
Heart disease	—	—	2
Pulmonary tuberculosis	—	—	1
Chronic bronchitis and emphysema ...	—	—	1
Anaemia, debility and chronic bronchitis	—	—	1
Chronic gastric ulcer	—	—	1
TOTAL ...	9	7	8

There has been no increase in the invaliding rate and no outstanding feature calling for comment.

TABLE I.

SICK, INVALIDING, AND DEATH RATES, EUROPEAN OFFICIALS, 1923, 1924 AND 1925.

(For the three Principal Towns and the Whole Territory).

	Dar es Salaam			Tabora			Tanga			Whole Territory		
	1923	1924	1925	1923	1924	1925	1923	1924	1925	1923	1924‡	1925
1. Total number of Officials Resident... ...	349	343	370	78	72	104	138	51	50	800*	861	855
2. Average number Resident	229	232	247	47	72	57	51.14	51	50	600*	594	618
3. Total number on Sick List	280	358	251	32	50	63	44	36	63	543	646	646
4. Total number of days on Sick List... ...	1,969	2,795	2,156	265	317	418	221	229	512	3,535†	4,584	4,750
5. Average daily number on Sick List... ...	5.39	7.66	5.90	0.72	0.87	1.14	0.605	0.63	1.40	9.68†	12.56	13.01
6. Percentage of Sick to average number Resident	2.35	3.30	2.39	1.53	1.21	2.00	1.18	1.24	2.80	1.61	2.11	2.10
7. Average number of days on Sick List for each Patient	7.03	7.81	8.59	8.28	6.34	6.63	5.02	6.36	8.13	6.51	7.10	7.35
8. Average Sick Time to each Resident ...	8.60	12.05	8.73	5.64	4.40	7.33	4.32	4.49	10.24	5.89	7.72	7.68
9. Total Number Invalided	7	6	9	...	...	...	1	1	2	14	7	13
10. Percentage of Invalidings to total Residents	2.01	1.75	2.43	...	...	...	0.72	1.96	4.00	1.75	0.81	1.52
11. Total Deaths	1	1	1	1	1	1	...	...	1	6	4	6
12. Percentage of Deaths to total Residents. ...	0.29	0.29	0.27	1.28	1.39	0.96	...	...	2.00	0.75	0.46	0.70
13. Percentage of Deaths to average number Resident	0.44	0.43	0.40	2.13	1.39	1.75	...	...	2.00	1.00	0.67	0.97
14. Number of Cases of Sickness contracted away from Residence.	...	...	...	3	...	...	...	...	...	16	20	29

*Approximate only—accurate figures not available.

†From 21 Stations shown in Table I in the 1923 Annual Report.

‡"Whole Territory" implying those Stations from which reliable returns were received *i.e.* Districts shown in Table XIV in the 1924 Annual Report.

TABLE II.

SICK, INVALIDING, AND DEATH RATES, ASIATIC OFFICIALS, 1923, 1924 AND 1925.
(For the three Principal Towns and the Whole Territory).

	Dar es Salaam			Tabora			Tanga			Whole Territory		
	1923	1924	1925	1923	1924	1925	1923	1924	1925	1923†	1924‡	1925
1. Total number of Officials Resident... ...	598	707	701	153	139	267	115	92	94	1000*	1250*	1427*
2. Average number Resident	472	585	540	116	139	154	90.14	92	94	877.5*	1011*	1037*
3. Total number on Sick List	1040	1377	1616	112	341	541	229	123	171	1807	2189	2776
4. Total number of days on Sick List... ...	3167	3239	4939	1638	1420	2015	1465	538	1005	8190	7140	10,017
5. Average daily number on Sick List... ...	8.68	8.87	13.53	4.49	3.89	5.52	4.01	1.47	2.75	22.44	19.56	27.44
6. Percentage of Sick to average number Resident.	1.84	1.52	2.51	3.9	2.79	3.58	4.45	1.60	2.93	2.55	1.93	2.64
7. Average number of days on Sick List for each Patient	3.05	2.35	3.06	14.6	4.16	3.72	6.35	4.37	5.88	4.53	3.26	3.60
8. Average Sick Time to each Resident ...	6.71	5.54	9.15	14.0	10.22	13.08	12.74	5.84	10.69	9.33	7.06	9.66
9. Total number Invalided ..., ...	4	3	6	2	2	...	2	1	2	9	7	8
10. Percentage of Invalidings to total Residents	0.67	0.42	0.86	1.7	1.4	...	1.74	1.08	2.13	0.9	0.56	0.56
11. Total Deaths	1	2	5	2	...	5	2	1	1	9	4	11
12. Percentage of Deaths to total Residents ..	0.17	0.28	0.71	1.30	...	1.87	1.74	1.08	1.06	0.9	0.32	0.77
13. Percentage of Deaths to average number Resident	0.21	0.34	0.93	1.72	...	3.25	2.22	1.08	1.06	1.02	0.40	1.06
14. Number of Cases of Sickness contracted away from Residence	...	...	...	...	...	...	...	...	...	...	11	17

*Approximate only—accurate figures not available.

†Returns from Mahenge not available for 1923.

‡"Whole Territory" implying those Stations from which reliable returns were received, *i.e.* Districts shown in Table XIV in the 1924 Annual Report.

TABLE III.

Showing Morbidity Rates for Malaria and Blackwater Fever amongst Officials, Dar es Salaam.

	European Officials.									Asiatic Officials.								
	Total days off duty.			Days off duty for Malaria.			Days off duty for B.W. Fever.			Total days off duty.			Days off duty for Malaria.			Days off duty for B.W. Fever.		
	1923	1924	1925	1923	1924	1925	1923	1924	1925	1923	1924	1925	1923	1924	1925	1923	1924	1925
January	156	219	204	90	65	17	...	...	...	269	443	236	138	173	145	...	...	...
February	96	282	133	18	74	13	...	...	...	344	257	317	114	89	193	...	...	1
March	247	329	130	31	64	41	...	...	...	274	282	461	94	151	233	...	...	32
April	214	231	183	10	92	49	...	21	...	208	228	396	51	153	219	...	...	...
May	229	312	273	107	163	56	29	25	...	453	235	500	287	144	62	...	...	...
June	192	254	206	105	91	54	17	20	...	335	327	591	273	214	46	...	16	...
July	151	225	232	57	39	28	...	26	...	337	236	436	154	117	68	70	...	32
August	95	142	127	9	23	28	...	...	...	238	283	301	95	134	22	29	20	...
September	89	152	135	27	17	12	...	...	...	166	297	289	56	85	19	...	...	...
October	236	234	161	20	33	14	...	...	...	182	238	491	65	95	69	...	...	...
November...	197	205	183	6	1	16	...	...	...	168	233	433	50	103	47	...	...	...
December...	146	210	222	29	43	78	...	...	...	339	180	579	129	89	177	...	...	12
TOTAL ...	2,048	2,795	2,189	509	705	406	46	92	...	3,313	3,239	5,030	1,506	1,547	1,300	99	36	77

Percentage of days off duty for Malaria and Blackwater
Fever to total days off duty, 1923 ... 27.10
do. do. 1924 ... 28.52
do. do. 1925 ... 18.55

Percentage of days off duty for Malaria and Blackwater
Fever to total days off duty, 1923 ... 48.45
do. do. 1924 ... 48.87
do. do. 1925 ... 27.38

TABLE IV.

SHOWING MORBIDITY RATES FOR MALARIA AND BLACKWATER FEVER AMONGST OFFICIALS, TANGA.

	EUROPEAN OFFICIALS.									ASIATIC OFFICIALS.								
	Total days off duty.			Days off duty for Malaria.			Days off duty for B.W. Fever.			Total days off duty.			Days off duty for Malaria.			Days off duty for B.W. Fever.		
	1923	1924	1925	1923	1924	1925	1923	1924	1925	1923	1924	1925	1923	1924	1925	1923	1924	1925
January	7	16	85	...	8	26	...	...	...	98	84	160	76	31	63	...	...	...
February	21	4	41	...	4	9	...	...	...	95	89	86	54	35	53	...	...	...
March	35	18	60	...	...	33	...	...	...	175	89	91	84	32	44	...	...	...
April	5	10	41	2	10	...	...	...	...	78	48	62	45	31	59	...	...	...
May	25	31	21	13	4	4	...	...	...	130	21	23	96	9	16	...	...	...
June	40	33	42	32	...	8	...	...	...	174	61	97	92	50	40	...	...	...
July	19	30	52	13	12	...	...	...	...	185	125	71	129	40	25	...	...	...
August	6	32	55	3	1	...	...	...	...	99	33	86	61	9	34	...	...	...
September	15	4	40	2	4	...	...	...	...	123	30	52	44	18	20	...	...	...
October	20	31	15	13	...	...	...	...	...	101	25	103	40	10	34	...	...	...
November	7	16	28	1	4	17	...	...	...	113	2	52	12	2	20	...	...	...
December	20	3	32	10	...	19	...	...	...	91	58	133	11	18	44	...	...	2*
TOTAL ...	220	228	512	89	47	116	...	...	...	1,462	665	1,016	744	285	452	...	...	2

Percentage of days off duty for Malaria and Blackwater
Fever to total days off duty, 1923 ... 40.45
do. do. 1924 ... 20.61
do. do. 1925 ... 22.65

Percentage of days off duty for Malaria and Blackwater
Fever to total days off duty, 1923 ... 50.89
do. do. 1924 ... 42.86
do. do. 1925 ... 44.68

*Remaining in Hospital.

TABLE V.

SHOWING MORBIDITY RATES FOR MALARIA AND BLACKWATER FEVER AMONGST OFFICIALS, TABORA.

	EUROPEAN OFFICIALS									ASIATIC OFFICIALS								
	Total days off duty.			Days off duty for Malaria.			Days off duty for B.W. Fever.			Total days off duty.			Days off duty for Malaria.			Days off duty for B.W. Fever.		
	1923	1924	1925	1923	1924	1925	1923	1924	1925	1923	1924	1925	1923	1924	1925	1923	1924	1925
January	52	91	50	1	3	46	...	...	...	211	80	153	107	58	78	...	...	...
February	19	64	32	3	13	6	...	...	...	191	117	139	93	63	92	...	...	...
March	13	108	39	3	43	11	...	...	19	182	157	150	66	67	106	...	...	4
April	46	108	36	13	28	29	8	...	5	277	202	172	142	111	96	...	...	23
May	90	96	52	24	39	13	33	...	7	193	83	202	82	23	148	9	...	12
June	32	51	53	32	3	8	...	...	5	273	122	203	134	73	143	19	...	...
July	36	22	73	32	7	1	...	...	...	367	167	147	169	40	97	...	...	...
August	31	23	9	28	2	...	...	...	...	208	102	103	132	50	75	...	...	...
September	45	51	51	1	11	14	...	...	...	274	128	163	90	84	81	...	...	4
October	25	82	6	11	21	3	...	...	...	111	70	173	33	44	56	...	...	...
November	15	33	27	6	2	4	...	...	...	115	93	146	36	76	108	...	6	...
December	20	33	14	...	14	1	...	...	...	73	104	267	31	50	162	...	14	...
TOTAL ...	424	762	442	154	186	136	41	...	36	2,475	1,425	2,018	1,115	748	1,242	28	20	43

Percentage of days off duty for Malaria and Blackwater
Fever to total days off duty, 1923 ... 46.00
do. do. 1924 ... 24.00
do. do. 1925 ... 38.91

Percentage of days off duty for Malaria and Blackwater
Fever to total days off duty 1923 ... 45.05
do. do. 1924 ... 53.89
do. do. 1925 ... 61.05

Recommendations.

The Medical Staff should be strengthened in order to allow, to begin with, of two additional Officers, Assistant Directors of Medical Services, at the headquarters office. The routine duties are increasing at a rate which will detract from organising and bringing to maturity schemes several of which are pending.

2. More Medical Officers are required so that the greater proportion of the Senior Medical Officers' time may be released for administrative duties—in other words a provincial system is inevitable.

3. An Officer for Maternity and Child Welfare Work and Schools is required for organising those important branches.

4. A Sanitation Officer is required for the Central Railway, and apart from the supervision of the general sanitation of the stations this appointment is of importance from the point of view of plague prevention, inspection of labour camps and plantations, and tsetse bush clearing at the more thickly infested sections of the line.

5. More European Sanitary Superintendents are required for the larger townships which are steadily increasing in size and at which more advanced sanitation is necessary; and for supervising the duties of the African District Sanitary Inspectors.

6. The improvement of water supplies, drainage generally, and, particularly, in connection with anti-malarial work, should be determinedly pursued.

7. The Vaccine Laboratory at Mpwapwa should be started at as early a date as possible. A young unprotected population is rapidly growing and we must get in first.

SECTION III.—HYGIENE AND SANITATION.

REPORT BY THE DEPUTY DIRECTOR OF SANITARY SERVICES ON THE HYGIENE AND SANITATION OF THE TERRITORY DURING 1925.

(A) General Review of work done and progress made.

A distinct improvement in the organisation of the Public Health Service of the Territory has taken place during the year under review. The increase in the staff of the Medical Department has enabled the Director of Medical and Sanitary Services to second three more Medical Officers to act as Sanitation Officers. At the end of 1925 Sanitation Officers were stationed at Dar es Salaam, Tanga, Tabora, Mwanza and Lindi, and although much remains to be done considerable improvement in the Sanitation of these towns can be reported. Five additional Sanitary Superintendents arrived in the Territory during the year; on December 31st 10 were present in the Territory while 2 were on leave. A commencement has been made in the recruiting and training of African District Sanitary Inspectors; further details of this work are given in Sub-section (C) Training of Sanitary Personnel. Maternity and Child Welfare work has been extended, particulars are given in Section V of the report by the Director of Medical and Sanitary Services. The newly appointed Sanitary Engineer arrived in the Territory early in 1926, a Medical Entomologist has been selected and the appointment of these Officers should result in anti-malarial work being done in a more scientific and precise manner in the future than has been possible in the past.

(1) *Preventive Measures.*—Mosquito and insect-borne diseases:—

Malaria: Malaria in its different forms continues to provide the largest number of cases attending Government Hospitals. The number of native patients seen in any year cannot be taken as an index of the malarial incidence during that period The personality of the individual Medical Officer, the degree of intelligence of the local inhabitants and the spread of education resulting in the appreciation of the value of European medicines are all factors which have to be taken into account.

Few conclusions can be drawn even from the number of European patients; the last census was taken in 1921 and while it is certain that there has been a very great increase in the European population since that date accurate figures are not available. The majority of European non-officials, especially if living at any distance from a Government Station would certainly not call in a medical officer to treat an uncomplicated case of Malaria. 22,277 cases of all classes were treated in Government Hospitals during the year of whom 4,234 were admitted as in-patients. The deaths numbered 35, a mortality rate of 0.8 per cent. No major antimalarial measures were carried out during the year but a most satisfactory increase in the routine work done by the different Health Offices to eradicate mosquito breeding places can be recorded. In some stations the number of inspections made by Sanitary Inspectors have increased by as much as 100%. As in most tropical countries there are considerable numbers of the urban population of the townships in the Territory who do little or nothing to prevent mosquito breeding on their premises, heavier fines are needed to convince habitual offenders of the errors of their ways.

Blackwater Fever.—52 cases were treated during the year with 15 deaths. Reports of these cases are rendered separately.

Trypanosomiasis.—The increase in the European personnel of the Medical Department sanctioned during 1925 has made it possible to extend the investigations into the incidence of Human Trypanosomiasis throughout the Territory. During the greater part of the year six Medical Officers were employed exclusively on Sleeping Sickness work; the results of their investigations confirm the opinion expressed in previous Annual Reports that numerous foci of infection would be found in the *morsitans* infested areas of the Territory.

Cases of the Rhodesian form of Sleeping Sickness have been found during 1925 in the following areas of the Territory:—

(a) In the neighbourhood of the Maswa sub-district of Mwanza where the first outbreak was discovered in 1922.

(b) Near Ikoma 50 miles north-east of (a). There is considerable inter-communication between the natives of these two areas. Tsetse fly occur near the Ikoma infected villages but from the reports received it appears that the natives do not live in intimate contact with the fly except when engaged in hunting or fishing. It is probable that at least some of the cases were infected when visiting the Mwanza area. The Assistant Bacteriologist is at present investigating this outbreak.

(c) In the Liwale sub-district of Kilwa situated in the south-eastern portion of the Territory. This appears to be a localised outbreak of low virulence.

(d) In the southern portion of the Tabora area and the northern part of Ufipa. Cases of Sleeping Sickness were detected in this area at the end of 1924 (page 139, Annual Report, 1924). Investigations have been continued throughout the year and it appears that approximately 15,000 square miles of country are infected. The type of disease is similar to that described in Nyasaland and by Kinghorn in Northern Rhodesia, cases being found in villages widely separated and as a general rule only a small proportion of the inhabitants are infected. Occasionally the disease becomes epidemic in a localised community; when this is so it appears probable that some concomitant cause is present such as marked shortage of food which not only results in lowered vitality but also in increased contact with the fly due to more frequent and prolonged visits to the forest for the purpose of hunting, fishing or in search of food.

Preventive measures have, in the main, been confined to treatment of infected cases and the concentration of the population in fly-free clearings or outside the forest altogether.

Treatment has been principally by Bayer "205" and Tryparsamide. The former has proved very effective in early cases when given in adequate dosage while Tryparsamide gives better results in cases with obvious involvement of the nervous system. The following is a summary of the cases and deaths in the different infected areas. Fuller details are given in Appendices.

	Cases	Deaths
Liwale	78	21
Maswa	120	14
Tabora	99	16
Ufipa	154	78
Ikoma	—	32

A few cases of Sleeping Sickness occurred on the shores of Lake Tanganyika, near Kigoma, where *G. palpalis* are numerous; fourteen cases were detected during 1925; several of these were either natives of the Congo or had recently visited the infected areas situated in Belgian Territory. The Medical Officer at Kigoma has made several journeys along the lake littoral examining the inhabitants of the villages, on or near the shore. Very few cases have been found and at the present time there does not appear to be any serious focus of infection in this neighbourhood. An additional Medical Officer has recently been stationed at Kasanga near the southern end of the lake and it will be possible during 1926 to carry out more detailed examination of the inhabitants of the southern shores of Lake Tanganyika.

While Trypanosomiasis of the Rhodesian type shows no signs at present of becoming pandemic in the areas known to be infected, the problem has become sufficiently large to require the creation of a distinct branch of the Medical Department to deal exclusively with Trypanosomiasis. Sanction has been obtained to do this and from 1st April, 1926, Dr. Maclean, with the title of Sleeping Sickness Officer, will be in charge of Sleeping Sickness investigations, his staff being recruited from those members of the Medical Department who show special aptitude for work of this nature.

Relapsing Fever.—Ornithodorus Moubata is widespread throughout the Territory, and Relapsing Fever is common in certain districts, particularly Tabora, Tukuyu and on the Kilosa-Iringa main road. There is very considerable native traffic along this route and in addition many Europeans proceeding from the Central Railway to the Lupa goldfields have become infected on this road. In some cases there has undoubtedly been gross carelessness and neglect of the most elementary precautions to prevent infection but experienced travellers who have taken every care have also acquired the disease. Circulars have been issued detailing the precautions to be taken and an advertisement published advising travellers to use an alternative route. The killing-off of the ticks appears to present insuperable difficulties; ticks have been thoroughly soaked in Cresol but when dried in the sun walk away apparently none the worse. An attempt is being made to provide tick-free camping grounds; areas are being cleared and hoed, the grass being then burnt on the ground, the cleared area is beaten hard and enclosed with fencing, no buildings of any kind being allowed within the fence. Small areas within the fence are then selected as sites for tents. The soil is loosened, thoroughly mixed with heavy oil, and again beaten hard. Sufficient time has not yet elapsed to determine whether this experiment will be attended with any success.

259 cases of Relapsing Fever were treated in Government Hospitals during the year. The largest numbers being Tukuyu 70, Tabora 63 and Iringa 41, the remaining cases being treated in fifteen different hospitals throughout the Territory.

Yellow Fever.—No cases have been recorded and so far as is known this disease does not occur in the Territory.

Filariasis.—43 cases are recorded as having been treated during the year; in addition a total of 331 patients with elephantiasis attended hospital, of these all except twenty were suffering from elephantiasis of the leg or scrotum.

Dengue.—The increase in the incidence of Dengue in Dar es Salaam mentioned in previous annual reports has continued during 1925. Of 71 cases reported 69 occurred in Dar es Salaam. The figures for the last four years for the European Hospital, Dar es Salaam, are as follows: 1922, nil; 1923, 9; 1924, 30; 1925, 62. It is probable that a proportion of this increase is due to improved diagnosis but there can be no doubt that dengue is becoming increasingly common in Dar es Salaam. *Aedes* larvae form the majority of the collections made by the mosquito brigade at Dar es Salaam; of 3,932 collections made during 1925, 1,677 were *aedes*, a percentage of 42.7. In previous years no differentiation has been made of the species of aedes present in the larval collections found at Dar es Salaam but during 1926, an attempt will be made to ascertain the relative proportion of *aedes aegypti*.

EPIDEMIC DISEASES. (See Tables pages 28 and 29).

Plague.—Cases of plague were reported from two districts during the year. 39 cases with 22 deaths occurred in the Musoma sub-district of Mwanza situated on the shores of Lake Victoria. It appears probable that infection is brought to Musoma from time to time by hides and other merchandise from the Shirati endemic area near the Kenya border. Arrangements were made early in the year for temporary stores to be erected outside the small township of Musoma thus preventing the introduction of possibly infected articles into the shops and dwelling houses in the bazaar. Since this precaution has been adopted no further cases have been reported. Five fatal cases of plague were reported from the Mbulu sub-district of Arusha but these were not confirmed by any microscopical examination. Considerable difficulty arises in the more remote districts owing to the natives being apparently quite unable to distinguish between anthrax and plague; twice during the year Medical Officers were able to visit villages reported by natives as plague infected and on both occasions it was found that the deaths were due to Anthrax.

Small-pox.—With the exception of one serious outbreak of small-pox the position has been satisfactory throughout the year. Small-pox was present in eight districts of the Territory but in seven of these prompt and efficient measures prevented the spread of the disease; only 26 cases with five deaths occurred. The eighth outbreak was a serious one. According to native information the origin of the epidemic was as follows. Early in March a Kenya native crossed the Tanganyika border near Kilimanjaro and slept on three successive nights in different villages, he then disappeared and has not been traced. He was a native of the Teita district where small-pox was present during March; shortly after his visit small-pox broke out in the three villages where he had stayed. The affected area is about fifty miles from Moshi and is situated on the eastern slopes of Kilimanjaro and the mode of life of the inhabitants favours the spread of any infectious disease. The Medical Officer, Moshi, visited the district in the first week in April and instituted quarantine regulations and a vaccination campaign.

The chiefs of the affected area gave every assistance and imposed strict quarantine there was, undoubtedly, however, considerable concealment of cases by the peasants and by June the disease had become epidemic. The effect of the vaccination campaign now became apparent and the disease rapidly died down, the last cases being reported in September; no more cases occurred during the remainder of the year. 1362 cases with 461 deaths were notified during the whole outbreak. The efficiency of the quarantine imposed is proved by the fact that the disease was confined to the original area infected. Over 50,000 vaccinations were performed, the majority under the supervision of a European Sanitary Superintendent who was seconded for duty in the infected district.

261,050 doses of vaccine were issued by the Director of the Laboratory during the year. The following table shows the results that have been reported from the various districts during 1925.

TABLE OF VACCINATIONS PERFORMED DURING THE YEAR.

District.	Number vaccinated.	Successful.	Modified.	Failed.	Not seen again.
NORTHERN AREA.					
Bukoba	879	...	...	...	879
Mwanza	8,060	5,409	1,454	1,197	...
Arusha	12,152	8,070	177	3,235	670
Usambara...	10,081	3,498	2,542	2,478	1,563
Moshi	58,800	38,808	5,902	8,889	5,201
CENTRAL AREA.					
Tabora	33,082	18,268	2,616	2,294	9,904
Dodoma	14,554	9,944	9	1,595	3,006
Kondoa-Irangi	1,542	720	202	620	...
Morogoro	5,214	2,095	1,142	1,963	14
SOUTHERN AREA.					
Iringa	13,600	5,667	4,429	2,534	970
Mahenge	1,400	740	306	354	...
Songea	1,500	1,120	229	151	...
WESTERN AREA.					
Kigoma	2,586	474	40	190	1,882
Ufipa	1,944	500	130	1,198	116
Rungwe	5,015	2,726	1,618	...	671
COASTAL AREA.					
Tanga	4,453	487	493	398	3,075
Pangani	2,400	1,980	113	154	153
Bagamoyo...	5,590	2,937	1,334	1,137	182
Dar es Salaam	15,329	422	135	420	14,352
Rufiji	5,100	2,998	578	506	1,018
Kilwa	3,918	2,078	...	853	987
Lindi	2,079	827	547	437	268
Mafia Island	...	...	...	...	...
TOTAL ...	209,278	109,768	23,996	30,603	44,911

Cholera.—No cases reported. So far as is known this disease does not occur in the Territory.

Dysentery.—(Amoebic and Bacillary). The numbers of cases of dysentery treated in Government Hospitals during 1925 are as follows:—

	Cases	Deaths
Unclassified	136	6
Amoebic	347	15
Bacillary	295	3

A considerable number of these patients are reported from hospitals in the neighbourhood of the larger plantations. Enteritis is common amongst labourers from a distance who are frequently given rations to which they are not accustomed in their own villages, and it is probable that a proportion of the cases diagnosed as dysentery should be classified as enteritis due to unsuitable diet.

Enteric Group.—28 cases with two deaths were reported from eleven stations in the Territory. The largest figures were Tanga 8, Tabora 5, and Dar es Salaam 3. The Tanga cases were composed of two Europeans and 6 non-Europeans, no deaths occurred. At Tabora one European was infected within the Township area while one Asiatic Official and 3 King's African Rifles Askari acquired the disease while away from the station; the Asiatic case died. After considerable propaganda by the Sanitation Officer several Europeans and a large number of Asiatics expressed their willingness to be inoculated and this was done early in 1926. One European and two non-Europeans were treated at the European Hospital at Dar es Salaam; all recovered from the disease.

Tuberculosis.—There is little progress to be reported in the campaign against Tuberculosis. At Dar es Salaam and Tanga accommodation has been found at the Infectious Diseases Hospitals for a certain number of advanced cases of pulmonary tuberculosis. The patients are nearly all natives as the accommodation provided is unsuitable for Asiatics.

In the towns the prevention of tuberculosis is intimately connected with the housing problem. In the Asiatic houses of the bazaars living rooms are almost invariably dark and badly ventilated while over-crowding is accentuated by storing merchandise in passages and living rooms. Should one of the inmates be suffering from active pulmonary tuberculosis the habit of indiscriminate expectoration must increase the probability of the spread of infection to other members of the family. In the native quarters newly-erected houses are almost all of one type; at Dar es Salaam the native houses are built of mud and wattle with palm thatch roofs, they are very well constructed, properly spaced and with adequate ventilation. The majority are five-roomed, the cost of erection being approximately £70. It is obvious that few natives can afford to be the sole tenants of a house of this type. The result is that the owner and his family occupy one or two rooms while the remainder are let to house boys and other natives employed in the town and consequently close association of casual acquaintances is likely to occur. The tenant of a room cannot leave his door and windows open whilst away at work owing to the danger of theft, and consequently dwellings are not properly aired during the day.

There is no doubt that the incidence of Tuberculosis is increasing in the Coastal towns and that at present little can be done to prevent the spread of the disease. The provision of Sanatoria, where patients suffering from active tuberculosis could be voluntarily segregated, would be costly and probably ineffective as natives will not willingly submit to prolonged courses of treatment. Compulsory segregation of the breadwinner of a family might entail the provision of Government support for the dependents. Recent correspondence in the English Medical Press emphasises the difficulty of making a correct diagnosis in early cases of pulmonary tuberculosis and the difficulty is certainly not lessened in this Territory where a second opinion can be obtained only in the largest towns and where laboratory facilities are frequently not available.

It is however necessary that some steps should be taken to initiate a definite campaign against the disease. Provision will be asked for in the draft estimates for 1927-28 for a sum of money to start small experimental tuberculosis colonies near Dar es Salaam, Tanga and Moshi; these will be village colonies and if they are found to be successful can be extended in future years.

(See Table of Incidence page 27).

Influenza.—Epidemic Influenza did not assume serious proportions during 1925. The most severe outbreak was in the Moshi district from which 484 cases with 37 deaths were reported.

Table showing incidence of Tuberculosis at the various Stations in the Territory during 1923, 1924 and 1925.

	1923		1924				1925			
	All Forms		Pulmonary		All Other Forms		Pulmonary		All Other Forms	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Arusha	5	...	4	3	3	2	18	4	9	2
Bagamoyo	5	...	2	1	...	...	...	...	...	...
Bukoba	5	...	6	2	...	...	26	...	...	...
Dar es Salaam										
European Hospital	1	...	...	...	3	...	1	1	...	...
Sewa Hadji Hospital	29	...	22	3	...	...	50	3	...	...
*Medical Officer of Health	...	...	2	...	...	...	...	...	...	...
*Private Practitioners	...	...	3	...	...	...	1	...	...	...
Dodoma	8	...	6	1	...	...	2	...	...	...
Handeni	...	...	...	...	...	...	...	...	...	...
Iringa	2	...	1	...	...	...	...	...	...	...
Kahama	...	...	1	...	...	...	...	...	...	...
Kasanga	...	...	...	...	...	...	...	...	...	...
Kasulo	...	...	...	...	...	...	...	...	...	...
Kibata	...	...	...	...	...	...	...	...	...	...
Kibaya	...	...	...	...	...	...	1	...	...	...
Kigoma	7	...	8	4	...	...	10	2	1	1
Kilosa	...	...	2	2	...	...	7	4	...	...
Kilwa	3	...	1	1	...	...	...	...	3	...
Kisaki	...	...	...	...	...	...	...	...	...	...
Kondoa-Irangi	3	...	10	...	3	...	4	1	9	...
Lindi	5	...	...	...	...	...	...	...	...	...
Lushoto	3	...	12	...	...	...	10	2	...	...
Mafia	...	...	1	1	1	...	...	...	...	...
Mahenge	...	...	5	2	...	...	3	1	...	...
Malangali	...	...	...	...	...	...	...	...	...	...
Manyoni	...	...	...	...	...	...	...	...	...	...
Mbulu	...	...	4	...	...	...	2	2	...	...
Mikindani	3	...	3	...	...	...	1	...	...	...
Mkalama	...	...	...	...	...	...	...	...	3	...
Morogoro	...	...	18	10	1	...	21	7	...	...
Moshi	32	...	69	2	...	...	73	5	...	...
Musoma	...	...	...	...	...	...	1	...	...	...
Mwanza	5	...	16	7	...	...	7	4	...	...
Namanyere	...	...	...	...	...	...	...	...	...	...
Pangani	12	...	41	8	...	...	32	3	...	...
Shinyanga	...	...	3	...	...	...	2	1	4	...
Singida	...	...	...	...	...	...	...	...	1	...
Songea	8	...	6	4	...	...	9	1	...	...
Tabora	6	...	18	6	6	3	10	1	...	...
Tanga	9	...	38	8	...	...	57	20	...	...
Tukuyu	9	...	8	...	...	...	2	...	2	...
Tunduru	...	...	...	...	...	...	...	...	...	...
Ujiji	...	...	6	...	...	...	...	...	...	...
Utete	2	...	...	...	...	...	...	...	...	...
TOTAL	162	...	316	65	17	5	350	62	32	3

*Not included in Tables V and VI.

INCIDENCE OF PRINCIPAL INFECTIOUS DISEASES DURING 1923, 1924 AND 1925.

Compiled from telegraphic returns received weekly from Medical Stations. The figures are frequently obtained from Native information and are not always reliable.

DISTRICTS.	SMALL-POX.						C.S.M.						POPULATION.
	1923		1924		1925		1923		1924		1925		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	
NORTHERN AREA.													
Bukoba	11	9	25	12	...	...	9	6	...	...	...	...	320,100
Mwanza	...	...	...	...	...	...	90	82	2	1	3	1	702,300
Arusha	2	...	...	...	3	3	1	1	...	...	...	...	97,700
Usambara	3	...	...	...	1	...	...	...	...	...	1	..	107,400
Moshi	...	...	...	...	1,362	461	1	...	...	...	...	...	158,200
CENTRAL AREA.													
Tabora	63	12	3	...	10	2	...	...	...	...	...	...	502,100
Dodoma	1	...	...	...	2	...	...	...	...	...	...	...	270,900
Kondoa-Irangi	1	...	...	...	...	...	...	...	...	...	2	2	196,700
Morogoro	1	...	...	...	...	...	...	...	...	...	...	...	174,300
SOUTHERN AREA.													
Iringa	...	...	...	...	...	...	...	...	...	...	...	...	104,800
Mahenge	...	...	...	...	1	...	..	...	...	...	...	...	74,600
Songea	10	...	...	...	...	...	...	...	...	...	...	...	148,200
WESTERN AREA.													
Kigoma	...	...	...	...	8	...	...	...	...	...	...	...	139,500
Ufipa	...	...	...	...	...	...	...	...	...	...	...	...	93,600
Rungwe	...	...	...	...	...	...	...	...	...	...	...	...	237,200
COASTAL AREA.													
Tanga	98	10	...	...	1	...	...	...	...	...	...	...	86,700
Pangani	2	...	...	...	...	...	...	...	...	...	...	...	74,900
Bagamoyo	1	...	...	...	...	...	...	...	...	...	...	...	57,100
Dar es Salaam	...	...	...	...	...	...	...	...	...	...	...	...	149,100
Rufiji	8	...	...	...	...	...	...	...	...	...	...	...	83,200
Kilwa	13	2	2	...	...	...	...	...	...	...	...	...	84,000
Lindi	3	...	...	...	...	...	...	...	...	...	...	...	243,400
Mafia Island	...	...	...	...	...	...	...	...	...	...	...	...	10,000
TOTALS ...	217	33	30	12	1,388	466	101	89	2	1	6	3	4,116,000

INCIDENCE OF PRINCIPAL INFECTIOUS DISEASES DURING 1923, 1924 AND 1925—*Contd.*

DISTRICTS.	PLAGUE.						INFLUENZA.						POPULATION.
	1923		1924		1925		1923		1924		1925		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	
NORTHERN AREA.													
Bukoba	...	...	...	...	...	...	...	...	20	...	...	...	320,100
Mwanza	24	16	17	12	39	22	1	...	...	...	...	...	702,300
Arusha	...	...	17	17	5	5	52	...	...	...	...	...	97,700
Usambara	...	...	...	...	...	...	...	...	...	...	484	37	107,400
Moshi	...	...	...	...	...	...	350	...	...	...	...	...	158,200
CENTRAL AREA.													
Tabora	...	...	...	...	...	...	3	2	...	...	...	...	502,100
Dodoma	15	10	8	6	...	...	359	151	...	...	...	...	270,900
Kondoa-Irangi	...	...	...	...	...	...	...	...	...	...	...	...	196,700
Morogoro	...	...	...	...	...	...	...	...	...	...	...	...	174,300
SOUTHERN AREA.													
Iringa	...	...	...	...	...	...	...	...	...	...	37	1	104,800
Mahenge	...	...	...	...	...	...	26	...	48	...	...	...	74,600
Songea	...	...	...	...	...	...	141	...	...	...	...	...	148,200
WESTERN AREA.													
Kigoma	...	...	...	...	...	...	...	...	...	...	...	...	139,500
Ufipa	...	...	...	...	...	...	217	23	234	9	76	3	93,600
Rungwe	...	...	...	...	...	...	...	...	8	...	17	...	237,200
COASTAL AREA.													
Tanga	...	...	...	...	...	...	...	...	?	26	...	...	86,700
Pangani	...	...	...	...	...	...	...	...	...	...	...	...	74,900
Bagamoyo	...	...	...	...	...	...	...	...	...	...	...	...	57,100
Dar es Salaam	...	...	...	...	...	...	...	...	...	...	...	...	149,100
Rufiji	...	...	...	...	...	...	...	...	25	...	...	...	83,200
Kilwa	...	...	...	...	...	...	...	...	...	...	...	...	84,000
Lindi	...	...	...	...	...	...	784	115	209	3	78	23	243,400
Mafia Island	...	...	...	...	...	...	...	...	...	...	...	...	10,000
TOTALS	39	26	42	35	44	27	1,933	291	544	38	692	64	4,116,000

HELMINTHIC DISEASES.

Ankylostomiasis.—3,963 cases were treated in Government Hospitals during 1925, an increase of 989. The coastal towns again show the heaviest infection, 1,493 cases being treated at the hospitals along the coast; Tanga heads the list with a total of 1,383, as compared with 1,370 during 1924. The Sanitation Officer, Tanga, in his Annual Report states that the incidence of hookworm appears to be diminishing. Amongst 350 pupils in the Government School only 26 cases were detected and none of these were very heavily infected.

The native death reports from the out-districts, admittedly unreliable yet in which the standard of error is probably fairly constant, give the following figures for deaths from Ankylostomiasis from 1921 to 1925:—

1921	1922	1923	1924	1925
444	284	189	241	149

The experiment mentioned on page 193 of the Annual Report for 1924 has been commenced. After considerable discussion it has been decided that Muheza, a small township situated on the Tanga Railway, should be the selected site. Latrines have been built under the supervision of a European Sanitary Superintendent and during 1926 the Sanitation Officer, Tanga, will visit Muheza and supervise mass treatment with Carbon Tetrachloride.

The commoner forms of other Helminthic infections are widespread throughout the Territory, the most heavily infected district being Moshi on the slopes of Kilimanjaro, where 1,983 cases of *T. Saginata* and 1,994 cases of *Ascaris* infection were treated during 1925.

Schistosomiasis.—This disease appears to be spreading in the Territory; 589 cases of *S. haematobium*, 25 of *S. mansoni* and 111 of Bilharziasis are recorded in the reports received from the different hospitals. The Sanitation Officer, Tanga, reports that 49 cases occurred at the Government School as compared with 27 in 1924. July and August, dry months, were the months of highest incidence. Search has failed to reveal *Bullinus* in the district or any suspicious water condition common to any large group of cases. The commonly accepted aetiology of this disease does not appear to cover the Tanga cases. Similar reports have been received from the Medical Officer at Pangani, a coastal town about 30 miles south of Tanga.

The Sanitation Officer at Tabora reports as follows:—

"An attempt was made to ascertain the incidence of Urinary Bilharzia among natives. The urines of young school children at Tabora and Ussoke and adult prisoners at Tabora Gaol, were examined. 35% *of children* and 15% *of adults* were found to be infected with *Schistosoma haematobium*. 77 cases in all were noted as follows:—

A. *Young School Children.*

	Number Examined	Number Infected
Tabora Government School	88	37
Ussoke Government School	61	19
Native School, Rufita, Tabora	15	2
Native School, Main Street, Tabora ...	11	4
	175	62

B. *Adults.*

Tabora Prison	100	15

The infected school children seen at Tabora included cases having their origin in Tabora, Shinyanga, Kahama and Nzega. About half the number of these cases appeared to have been infected at Shinyanga.

At Tabora collections of fresh water molluscs were found in pools at Rufita, Mwanza Road, Main Street, and Chem Chem. These were forwarded for identification to Dr. Corson, Acting Director of Laboratory, Dar es Salaam. Two species were identified as *Isidora nasuta* (found in the four above districts) and *Lanistes ovum*—[Peters].

Of the snails dissected at Tabora, forked-tailed cercariae without eye spots were noted in *Isidora nasuta* from the Rufita pool. The majority of cases having their origin at Tabora appeared to have been infected at this pool."

The work of the African District Sanitary Inspectors who are being stationed in the rural districts should result in the improvement of the standard of village sanitation with a consequent diminution in the incidence of helminthic infections generally.

(II) *General Measures of Sanitation.*—In certain of the coastal towns sewers constructed during the German occupation exist, these discharge into the sea and in some cases are in poor condition. At Dar es Salaam the outfalls have been repaired and function satisfactorily; it is however only a small section of the town, mainly along the water front, which is served by these sewers. In the remainder of the residential area the house drains discharge into porous cesspools and this method of disposal is used in the other townships where a water-carriage system is in existence. The cesspools work in a satisfactory manner when the soil is absorbent and where the water table is not too near the surface; when the rainfall is heavy they are liable to overflow and become offensive. There is also considerable danger of the covers, particularly if constructed of concrete, becoming damaged, thus affording ingress and egress for mosquitoes. The construction of cesspools cannot however be continued indefinitely in Dar es Salaam; building activities are increasing and the provision of a proper sewerage system for the Residential and Commercial Areas cannot long be delayed.

In the majority of up-country townships the bucket and incinerator form of conservancy is used; constant supervision is necessary to see that the work is properly carried out; the greatest drawback is the fact that the natives of certain districts will not do this work, however high the wages offered may be. Labour has to be imported from other districts and the comfort and health of the whole community is at the mercy of the conservancy gang; should they strike, their demands must be granted otherwise the sanitary condition of the township will become appalling in a few days.

In the native quarters the deep pit privy is almost universally used. When properly constructed and maintained these give rise to no nuisance but frequent inspections are necessary to ensure that they do not become breeding places for flies and mosquitoes.

Scavenging and refuse disposal in all but the smallest townships is carried out by labourers paid and supervised by the sanitation department. Covered dustbins for streets, markets, and other public places are supplied out of the vote for sanitary equipment; the Public Works Department provides dustbins for government quarters and offices, while private individuals are required to maintain suitable receptacles for their own use. In the majority of the townships the refuse is removed to incinerators in ox or hand carts. For Dar es Salaam one large motor refuse lorry similar to the type in use at Hong-Kong has been obtained and is used in the residential area. Household refuse is dealt with much more expeditiously by this method and another motor lorry will be brought into use during 1926.

At Dar es Salaam incineration is still carried out at batteries of movable incinerators made of iron railway sleepers. These are erected in low-lying situations which require filling and moved as the work is completed. These incinerators cause a certain amount of nuisance and the erection of a proper destructor will have to be considered in the near future. In the smaller townships the type of incinerator in use is the Khartoum pattern.

Drainage.—The surface drainage of the towns is unsatisfactory, far too many open earth drains exist which are a constant source of worry and expense. This question was discussed on page 192 of the Annual Report for 1924. The Sanitary Engineer has arrived and it is hoped that definite drainage schemes will be provided for the larger townships which can be proceeded with as funds allow. The capital expenditure would be considerable but the annual cost of maintenance and repair would be greatly diminished, while the provision of masonry drains would remove numerous breeding places for mosquitoes.

Water Supplies.—Some improvements have been made during 1925 in the water supplies of certain townships but very much remains to be done. The position at Dar es Salaam is discussed on page 51. The provision of a satisfactory water supply is the most important factor in the Public Health of the community. The presence of numerous wells mostly grossly contaminated, within the boundaries of a township, not only increases the danger of an outbreak of water-borne disease but also provides numerous breeding places for mosquitoes. The absence of a pipe-borne supply necessitates the use of many small receptacles for the storage of water in the native quarter which provide the main breeding places for *aedes aegypti.*

Offensive Trades.—Adequate powers to control Offensive Trades exist under the Township Rules. Rules 45 and 46 are as follows:—

> "45. No person shall place, store or keep or permit the storage or keeping of any sisal, hides, skins, raw cotton whether ginned or unginned or cotton seed or any seeds, grain, or other parts of plants intended for consumption as food or fodder or for sale or export, except in such premises or locality and in such manner as may be approved by the Authority.
>
> The Authority may by order in writing direct the removal of anything stored or kept in contravention of this rule to any premises or locality within the limits of the Township or may direct removal from the Township, and the owner or person in charge of the goods so ordered to be removed shall remove them accordingly."
>
> "46. No person shall establish or carry on any dangerous or offensive trade or any noxious or offensive business or manufacture or any camel oil-mill without the written permit of the Authority. Such permit may be suspended if at any time the Authority considers the conditions unsatisfactory."

Whenever occasion arises sites suitable for offensive trades are selected in the different Townships by the District Town Planning and Building Committees and submitted for approval to the Central Town Planning and Building Committee. Difficulties do arise with reference to the storage of grain, hides and other rat-attracting produce by the small trader who buys from the local natives in small quantities and in turn sells to the exporter. This type of middleman cannot afford to erect rat-proof godowns and yet has to hold his stocks until he accumulates sufficient to attract the purchaser for export. The present conditions under which rat-attracting produce is stored cannot be allowed to continue and the question is again under consideration at the present time.

Clearance of bush and undergrowth.—This work is carried out as part of the general duties of the sanitary labourers with the assistance of station hands and prison labour.

Sanitary Inspections.—The following stations were inspected by the Director of Medical and Sanitary Services, Deputy Director of Medical Services or Deputy Director of Sanitary Services during the year:—

Arusha twice, Dodoma four times, Igali once, Iringa once, Kigoma twice, Kilosa once, Kilwa once, Kondoa-Irangi twice, Korogwe once, Lupa once, Malangali once, Mombo once, Morogoro twice, Moshi twice, Pangani once, Songea once, Tabora twice, Tanga twice, Tukuyu once, Ujiji once, Utete once.

III. *School Hygiene.*—Progress in the Medical inspection of school children is being made at Dar es Salaam, Tanga and Tabora, and detailed reports are given by the Medical Officers of Health of those stations at pages 52, 59, and 66 which show that excellent work is being done, both in the treatment of disease and in the inculcation of the hygienic sense.

The need for an officer to co-ordinate this work throughout the Territory is referred to by the Director of Medical and Sanitary Services on page 21.

IV. *Labour Conditions.*—Labourers, even when perfectly healthy, at present frequently suffer considerable hardships on the journey from their homes to the plantations; the trip may take weeks and the native whose home is in a non-malarial, tick-free district is practically certain to become infected with Malaria and relapsing fever. Camps are poor or non-existent and the food obtainable will probably differ from that which he eats in his own village with the result that digestive troubles occur and the labourer arrives at his destination in poor condition, unfit to perform hard work, and with his resistance so lowered that he falls an easy victim to any disease which may be prevalent amongst the natives on the plantation. The provision of Government controlled rest camps on the main labour routes where the labourer could obtain lodging and food and where adequate medical supervision would be available would do much to improve the present state of affairs.

The Labour Commissioner states that the large employers of labour are showing an increased appreciation of the necessity for providing good housing for their employees but that a great advance is required before the position can be regarded as at all satisfactory.

During the last quarter of 1924 a memorandum, dealing with the general and special aspects of the employment of labour, was drawn up by the Director of Medical and Sanitary Services and widely circulated to Administrative Officers, Medical Officers and all employers of labour, for their guidance.

The Memorandum included the procedure that should be adopted prior to and during recruiting, and provided detailed notes under the following heads:—

Diet and Feeding, Housing, Water Supplies, Bath and Laundry Accommodation, Latrines, Sanitation and Medical Organisation and Hospitals. It is hoped that the information contained in this circular will minimise materially the incidence of disease and promote the health of the labourers.

The following is a quotation from the Labour Commissioner's Report, 1925, section 129:—"The most serious defect on almost all plantations is undoubtedly the sanitary accommodation; proper facilities for ablutions and washing of clothes seldom exist, while the latrines are usually of a most primitive type and badly kept; flies and mosquitoes abound, and the whole camp is in an objectionable condition. The main cause of such a state of affairs is the difficulty in enforcing any camp discipline, which at present renders it almost impossible for a manager to ensure the observation of sanitary rules. Much might be done by the introduction of a better type of accommodation, while the use of fencing should be general, since this in itself is a valuable aid to cleanliness. Without some means of compelling the observance of rules of hygiene, however, we can expect little improvement; I deal further with this question in the section "Estate Discipline."

In the section on "Estate Discipline" the Labour Commissioner points out the impossibility of maintaining compounds in a sanitary condition until Estate Managers are given powers to punish habitual offenders against the most elementary sanitary regulations. However well arranged the camp and latrines may be, difficulties are certain to arise before raw natives can be induced to make proper use of the sanitary conveniences provided; something more than persuasion is required; it is possible that much could be done by dividing compounds into sections each with its own latrine and incinerator and placing in charge of each section an elected headman who would be responsible, in addition to his other duties, for the cleanliness of that area of the compound. Regular daily inspections by a European should be made, marks allotted each day for the cleanliness of the huts, latrines and general surroundings of each section, and a prize of extra rations or free issue of meat made on pay day to the section which had been maintained in the most cleanly manner during the period. It is possible that in this way a spirit of rivalry might be created while the weekly or monthly prize would give each labourer a personal interest in the condition of the section of the compound in which he lives. The writer has been informed that an experiment of this nature was most successful when tried in the Tanga district.

The provision of medical attention and hospital accommodation for plantation labourers presents many difficulties. Only the largest estates could afford the expense of engaging a fully qualified Medical Officer and it would not be easy to obtain suitable candidates for these posts.

Adequate medical attention could be provided on the great majority of plantations by the employment of Indian Sub-Assistant Surgeons or on the smaller estates by Indian or Native Compounders. A commencement has been made in training native dispensers but it will be a considerable time before sufficient numbers are trained to supply employers of labour in addition to the needs of the Medical Department.

V. *Housing and Town Planning.*—Fourteen meetings of the Central Town Planning and Building Committee were held during the year. In addition to the consideration of the plans of minor townships and the siting of Government and other buildings the planning of Kigoma, Bukoba and Kilosa townships has been completed A considerable part of the Committee's time has been expended in the consideration of the provision of additional sites for Government buildings at Dar es Salaam. There is a serious shortage of Government-owned quarters at Dar es Salaam which necessitates the renting of privately owned houses to provide accommodation for officials. This causes great hardships to the non-official community who have often to occupy unsuitable dwellings or to enter into competition with the Government to obtain proper accommodation. The Central Town Planning and Building Committee's suggestions were embodied in a memorandum and submitted to the Government.

A building programme for a number of smaller bungalows which will provide quarters for the less senior officials has been included in the draft estimates and type plans of these buildings have been prepared and approved.

The housing question is equally acute in many of the stations outside Dar es Salaam and the distribution of the European staff of the Medical and Sanitation Department has too often had to be governed by the fact that quarters are not available in any particular township.

VI. *Food in relation to Health and Disease.*—The Townships Rules provide for the inspection and control of premises used in the preparation and sale of food and drink. The following trades and premises require Licences and are inspected annually before the licence is renewed.

Eating houses
Aerated Water }
Ice-cream } Manufactories.
Sherbet }
Cooling drink }
Milk shops
Cowsheds used for milch cattle
Bakeries
Laundries.

Owners of businesses of the above description are informed that their premises will be required to reach a satisfactory sanitary standard before they can be recommended for renewal of licence.

The following points in connection with licensed premises receive special attention but each individual case is considered on its merits :—

"Every room must be provided with adequate ventilation and light.

"Floors must be levelled and repaired, rat-holes filled up, walls plastered and whitewashed. Paintwork must be cleaned or renewed.

"Latrines, drains and wash-places must be adequate and in a satisfactory and sanitary state.

"Water containers must all be provided with mosquito proof covers.

"Utensils and furniture used for the business, if connected with the preparation of food or drink, must be clean and in good order.

"A sanitary dust-bin must be provided."

In addition the following rules are enforced:—

"No premises used as a bakery or dairy or for the manufacture of aerated waters, ice-cream, or for the preparation of cooked food shall be used as a sleeping apartment.

"No premises will be licensed as a bakery unless adequate provision is made for protecting the bread and other foodstuffs manufactured thereat from flies and dust." A suitable receptacle is usually provided for the storage of these articles and often fitted with a glass front.

"No sheep, goats or cattle shall be allowed to be upon any premises licensed for the sale of foodstuffs.

"Rooms used for the storage of foodstuffs or material which may be attractive to rats must be made proof against these animals as far as possible."

It is not possible to attain to the same sanitary standard in all the townships in the Territory. Regulations which may fairly be employed in Dar es Salaam, Tanga or Tabora could not be rigidly enforced in the case of a small trader in an up-country station, but as a general rule the conditions under which foodstuffs are distributed in Tanganyika Territory compare favourably with those in existence in other parts of Eastern Africa.

Markets.—The markets are controlled by the Administrative Officers, and Market Masters are appointed who are responsible for the general supervision of the markets. Inspections of the general conditions and of the food exposed for sale are carried out by representatives of the Medical Department.

Slaughter-houses.—In those townships where an officer of the Veterinary Department is stationed the supervision of the slaughter house and the inspection of carcases is carried out by that Department. In other stations these duties are performed by the Medical Department.

Imported food supplies.—These are of minor importance in the dietary of the native population. Salt and sugar, approximately 1,500 tons of each, were imported during 1925. About 600 tons of dried fiish, mainly shark and barracouta, are imported yearly into Dar es Salaam, a special market being provided where this food is sold. Although the fish is offensive to the senses of a European there is no evidence that it has any harmful effect on the consumer.

Indigenous food supplies.—During any year when average climatic conditions obtain, each district of the Territory produces ample food supplies for the local inhabitants. Tanganyika, however, has a low rainfall for a tropical country, and droughts are not infrequent. A shortage of rainfall in one area is generally compensated for by abnormally good conditions in others, and, taking the Territory as a whole, sufficient indigenous food supplies are grown. The inhabitants, like most other African natives, are somewhat improvident, and not uncommonly a distinct shortage of food exists immediately before harvest time. The foodstuffs grown by the local native do not provide for a varied dietary. In their own villages wild fruits and herbs gathered by the women supplement the normal diet, but when adverse conditions arise or when the native leaves his home he is liable to suffer from symptoms of deficiency disease.

(B) Measures taken to spread the knowledge of Hygiene and Sanitation.

The Education Department of the Territory do everything they can to teach Hygiene and Sanitation to the pupils at the Government Schools. An excellent elementary text book "Afya" written in Kiswahili by the Director of Education is in use in all Government Schools, while during 1926 all Government Central Schools where English is taught will be supplied with copies of Dr. Blacklock's books. At the larger stations the Sanitation Officers and European Sanitary Superintendents lecture to the pupils;

at Tanga the Sanitation Officer has established a Dispensary which is staffed by pupils of the school who have been taught by him and it is hoped that these boys will eventually enter the Government Medical Service.

At the latter end of 1925 the Zanzibar Government kindly lent the two cinematograph films "Malaria" and "Unhooking the Hookworm," these were shown at the Cinema at Dar es Salaam. The school children, the Health Office employees, the Native staffs of the Hospitals all attended, as also did the Askari of the K.A.R. and Police. Explanations of the films were given in Kiswahili and the Natives appeared to take an intelligent interest. It is probable that better results would be obtained if films depicting African life could be shown.

The posting of African District Sanitary Inspectors amongst the village communities must also result in the spread of the knowledge of Hygiene and Sanitation amongst the peasant class. Progress will necessarily be slow but the teaching of the Inspectors coupled with the return of schoolboys to their homes will ensure that the elementary principles of sanitation will become known to an ever increasing number of natives; whether the peasant class will put this knowledge to practical use is a different question but it is at least probable that the more intelligent and progressive tribes will do so.

(C) Training of Sanitary Personnel.

In previous Annual Reports it has been emphasised that, if improvements are to be made in village sanitation, trained Native Sanitary Inspectors must be provided. During 1925 a commencement has been made at the Health Offices at Dar es Salaam, Tanga and Tabora in training candidates for these posts. The basic principle of the scheme is to obtain candidates of some social standing from the districts concerned who, when they have undergone a course of training at a Health Office, are returned to work in their own districts. It is essential that the African District Sanitary Inspectors shall be fully acquainted with the customs and prejudices of the people amongst whom they have to work. The African villager is one of the most conservative persons in the world and little or nothing will be accomplished by sending an alien inspector, however well trained, to alter the habits of centuries. Candidates are required to have sufficient general education to profit by the instruction given and must read and write Kiswahili sufficiently well to be able to send intelligent reports to the Sanitation Officers under whom they work.

The training given has not been elaborate and extends over a period of about three months. The pupils are given practical instruction in the construction of native houses of good type, the necessity for ventilation and light being emphasised, in the construction of deep pit latrines, the construction and use of incinerators, and in simple methods of improving and protecting native water supplies. Elementary lectures are given on infectious diseases, insect, food and water-borne diseases and in native diets, particular attention being given to the dietary of infants; all candidates are trained as vaccinators. In the great majority of cases the progress made by the pupils has been much greater than was anticipated and the reports sent in by those African District Sanitary Inspectors who have been posted to their districts are, in the main, very satisfactory.

In the opinion of the writer the whole success of the scheme depends on adequate supervision and support of these natives by trained European personnel. An African Sanitary Inspector, however enthusiastic he may be, is certain to become apathetic when he finds that his efforts to improve village sanitation receive little or no assistance from the local inhabitants and that he receives no evident support from European Authority; a monthly visit and an inspection of the villages by a European in company with the African District Inspector would keep the African Inspector up to his work and would also convince the local natives that his efforts were backed by European Authority.

In the absence of some form of Medical Training School it has not been possible to do much to provide more highly trained natives to undertake the duties of African

Urban Sanitary Inspectors. English speaking candidates of the right type are not easy to obtain. The time of the Sanitation Officers is very fully employed in carrying out their ordinary duties together with the training of the African District Inspectors. It is not at present considered feasible to institute regular courses of a more advanced nature. Sanitation Officers and Medical Officers are encouraged to engage any suitable candidate who presents himself and to train him for work in their own stations but no central school of instruction for Sanitary Inspectors can be appointed to carry out the work.

NOTE:—Although the following extract from a report by the Sanitation Officer, Tabora, refers to early 1926, and not to the year under review it is included as it may be of interest as showing how the work of the African District Sanitary Inspectors is progressing.

> "The Sanitation Officer inspected the out-districts of Igalulu, Mabama, Ussoke and Ussinge during the month. It is gratifying to note that much good work is being done by the District Native Sanitary Inspectors, and if the conditions existing at the above stations can be taken as an index of how the work is being carried on throughout the district, it may be concluded that the statistics rendered in their monthly reports can be accepted with confidence.
>
> The Inspectors appear to enjoy the co-operation of the native chiefs; and the general native population, on the whole, seem willing to comply with instructions given by the inspectors, in spite of the element of force being absent.
>
> The general cleanliness of houses, compounds and surroundings at the villages inspected was found to be satisfactory.
>
> An attempt has been made in most cases to provide increased ventilation for huts, and although in many instances the inlets can hardly be called windows, it nevertheless appears to be a step in that direction.
>
> Latrine accommodation has been provided for practically all houses and moreover the natives make use of these conveniences. Unfortunately the exceptional rainfall of this season has raised the ground water to such a level as to prevent pit privies of adequate depth being dug, with resultant extensive breeding of flies.
>
> Mosquitoes are very prevalent in these villages at present on account of the large number of pools and swamps in the vicinity. A large number of collections are still found in premises, although in many cases it was noted that householders were making an attempt to prevent mosquito breeding. Many pools have been filled in or drained. In some instances this has not been found possible and in other cases the natives have refused to do the work even after instructions from the District Officer. It is difficult to see how such measures can be enforced at villages where Township Rules are not in operation.
>
> At each village a plot of ground has been laid out for use as a cemetery. The general population seem to have no objection to using these burial grounds; the Sultans however consider it beneath their dignity to bury any member of their families in the general native cemetery and maintain that this must be done at their residences. Further there is a belief in some districts that should a child die under the age of six days, it must be buried under the house, otherwise the mother will be unable again to bear children. While considering it unwise to attempt to discontinue these practices straight away, the inspectors have been instructed to see that these burials are carried out in as sanitary a manner as possible and at the same time point out the hygienic disadvantages of such customs.
>
> With regard to child welfare work, the inspectors during their rounds appear to be doing their best to instruct the natives in this connection, no doubt with a certain amount of success.
>
> An effort has been made to collect births and deaths statistics. I think it might be considered that the number of deaths reported is fairly correct but difficulty appears to be experienced in obtaining birth statistics. This would

seem to apply to Tabora Township also where it is customary for mothers to go out to the shambas to bear their children, this being thought to have a beneficial effect on the crops.

The following is a comparison of Native Infantile Mortality Figures in the Township and Out-districts for the months of January to April:—

	January	February	March	April	Average, January to April
Tabora Township ...	266	400	285	266	304
Out-districts of Tabora Sub-district ...	76	113	301	148	162

The chief causes of death among infants during these months appear to have been Malaria and Respiratory conditions.

With reference to water supply at these out-district villages, in some cases, *e.g.*, Itetemia, an effort is being made to have properly built wells instituted; in other cases where this is not possible at present the water holes have been fenced round or covered over with a grass banda roof.

Where houses are dilapidated and uninhabitable, the inspectors have been instructed not to order the work of demolition but to refer the matter to the District Officer when on tour in the district, in order to avoid giving cause for trouble.

At villages where cattle are slaughtered a site has been demarcated for this purpose and the slaughtering is carried out under the supervision of the African District Sanitary Inspector. In several districts unfortunately it is customary to keep the meat for four or five days until infested with fly maggots and in this "high" condition it is apparently eaten with relish by the natives.

In several out-districts difficulty is also being experienced in convincing the natives that providing separate accommodation for cattle, etc., and human beings, is a desirable measure for them to adopt."

Early in 1925 instructions were received that information on the subject of the Mosquito-proofing of Govt. Quarters should be included in the Annual Medical Report.

The following particulars have been supplied by the Director of Public Works:—

MOSQUITO-PROOFED GOVERNMENT QUARTERS, TANGANYIKA TERRITORY.

STATION.	Mosquito proofed Houses.	Non-Mosquito proofed Houses.	Remarks.
Dar es Salaam	107	36	
Tanga	27	3	
Pangani	2	4	
Kibata	...	1	
Tunduru	...	1	
Mkalama	1	...	
Maswa	...	3	
Musoma	4	...	
Kasulu	1	1	
Kibondo	...	1	
Kigoma	4	4	
Ujiji	4	...	
Kahama	2	...	
Shinyanga	2	3	
Nzega	...	2	
Tabora	30	...	
Lindi	5	8	
Biharamulo	...	4	
Iringa	...	7	
Songea	...	6	
Lipumba	...	1	
Bukoba	10	3	
Mwanza	14	3	
Liwale	3	...	
Malangali	...	1	
Newala	...	1	
Masasi	...	1	
Tukuyu	...	7	
Moshi Arusha	...	...	No houses are protected by mosquito proofing.
Igali	...	7	
Mikindani	1	6	
Morogoro	15	1	
Namanyere	...	3	
Kasanga	...	3	
Mahenge	1	8	
Utete	6	1	
Bagamoyo	1	4	
Mafia	...	1	
Dodoma	7	3	
Manyoni	...	1	
Mpwapwa	...	6	
Singida	...	2	
Kondoa-Irangi	5	...	
Lushoto	...	8	
Kilwa	3	4	
Kilosa	6	...	
TOTAL	261	159	

In the same despatch particulars were asked for as to the relative incidence of malaria on persons living in protected and unprotected quarters.

It appears to be impossible to obtain any reliable statistics as to the relative incidence of malaria amongst the inhabitants of protected and unprotected quarters.

In out-stations officers spend a considerable portion of their time on safari and it will always be difficult and sometimes impossible to decide whether infection was acquired in the station or on tour. In the larger towns the personal factor enters into the question so largely that no statistics can be reliable. It is obvious that a family who spend their evenings quietly at home, even when the quarters are not mosquito-proof, but who wear mosquito boots and take other precautions to avoid infection are less liable to get malaria than the tenants of a properly mosquito-proofed dwelling who spend the majority of their evenings attending social functions at a club or other building which is not mosquito-proofed.

(D) Recommendations for future work.

Major anti-malarial work.—The more important townships should be provided with plans showing the engineering works necessary to eliminate permanent mosquito breeding places. Detailed estimates should be prepared and the work proceeded with from year to year as funds permit.

Water supplies.—Definite schemes for a pipe-borne water supply for each of the more important towns should be drawn up and provision included in the estimates for the work to be carried out at an early date. In the smaller townships which depend on supplies from wells, these should be put in order and pumps provided instead of the usual insanitary rope and tin.

Roads and drains.—The extension of metalled roads in the native quarters would do much to improve the sanitary condition of these areas. The substitution of permanent surface water drains for the present earth channels would result in a very considerable reduction in the quantity of labourers required for maintenance purposes alone.

Maternity and Child Welfare work.—Every effort should be made to extend this work and to train native midwives for work in the villages. It is most important that Nursing Sisters employed in this work should have a good knowledge of native languages and understand native habits and prejudices. Nursing Sisters engaged in welfare work in townships can also assist in the inspection of school children. In order that this work may be carried on efficiently it is necessary that the notification of births and deaths should be made compulsory for all races.

Native Sanitary Personnel.—Should a Medical School be started in the Territory a branch for the training of Native Sanitary Inspectors should be included, as has been stated in section C of this report. The work of training native sanitary personnel up to the standard requisite for an urban inspector cannot be carried on in a satisfactory manner by the Sanitation Officers.

Lymph Manufacture.—The conditions under which vaccine lymph is produced at Dar es Salaam are not satisfactory and it is difficult to ensure that adequate reserves are always available. The question of the removal of the Vaccine Lymph institute to Mpwapwa where the conditions would be much more satisfactory is under consideration at the present time.

A. H. Owen,
Deputy Director of Sanitary Services.

REPORT OF THE MEDICAL OFFICER OF HEALTH FOR DAR ES SALAAM.

By

Dr. R. R. Scott, M.C., M.B., B.S., M.R.C.S., L.R.C.P., D.P.H.,

Senior Sanitation Officer.

The year 1925 shows no outstanding features of importance. Consolidation of the work inaugurated has proceeded on the usual lines, and the staff required for the administration of the Public Health of the town is now available.

The appointment of additional separate European staff for the Township Authority is very satisfactory, and the approval of the appointments of a Sanitary Engineer in the Public Works Department, and a Medical Entomologist should prove of the utmost value.

Maternity and Child Welfare work has made some progress under Miss Allardes, whose energies are, however, directed more towards the child welfare than the maternity, owing to the lack of satisfactory notification of births. Authority to compel the notification of African births under the Native Authority Ordinance, 1923, was given by Government Notice in July, but these powers are not yet being satisfactorily exercised in this town.

No epidemic occurred during the year, but malaria is still reducing the efficiency of the population and the cost of this disease to the community in work lost must be enormous; anti-mosquito measures absorbed £1,927 in maintenance and £44 in capital expenditure from the funds of this Department: these figures ought to be reversed if we were tackling the problem in a proper manner.

The training of African District Sanitary Inspectors was commenced during the year, and a number of men were trained and distributed to the villages, where they are endeavouring to instil elementary ideas of sanitation into the rural population.

Tuberculosis is still a source of worry, and the lack of suitable accommodation for cases of the disease, whether early or late, is most unfortunate. The continued escapes of patients from the Infectious Diseases Hospital, owing to the lack of adequate fencing, is to be deplored.

Little has been done in the way of direct Public Health propaganda, but constant education of the public of all communities by the frequent house to house visits of the Inspecting Staff is taking place.

Additional models of insects and some new lantern slides have been added to the Museum, and a large size model flea, measuring about fifteen inches in length, was presented by Cecil Cochrane, Esq., of Newcastle-on-Tyne, and is gratefully acknowledged.

STATISTICS FOR THE YEAR 1925.

	Europeans	Africans	Asiatics (including Syrians)	Total
1921 Census :—				
Civilian population	555	10,901	4,008	15,464
K.A.R. and Police not included in above ...	...	1,422	...	1,422
TOTAL ...	555	12,323	4,008	16,886
1925 Population estimated by Senior Commissioner on 30th May, 1925, by calculation from inhabited houses and other figures.				
Civilian population	650	19,600	4,500	24,750
K.A.R. and Police not included in above ...	...	1,018	...	1,018
TOTAL ...	650	20,618	4,500	25,768
Increase of population during 41 months (December 1921 to May 1925)	95	8,295	492	8,882
Percentage increase over 1921 population ...	17.1%	67.3%	12.28%	52.59%
Monthly rate of increase for 41 months ...	0.41%	1.64%	0.30%	1.28%
Annual rate of increase for 41 months ...	4.92%	19.68%	3.59%	15.36%
Immigrants contributing to the town's population cannot be stated.				
Estimated population on 31st December 1925 (*i.e.* population on 30/5/25 + calculated increase for 7 months: total population by calculation, not by addition of the three estimated populations, which gives 28,248.10 : error = .06%	668.65	22,984.95	4,594.5	28,076.81
Births registered :—				
(Registration of African and Asiatic births is not compulsory under the Registration of Births and Deaths Ordinance) 1923	12	...	8	20
1924	19	...	6	25
1925	20 = a rate of 29 per 1,000	...	8	28
Deaths registered at Health Office for which burial permits were issued. 1923	8	238*	79	325
1924	8	259	79	346
1925	4	304	124	433
The figures given for registration of deaths by the District Registrar are as under.		(*corrected total)		
Europeans 5				
Africans 296				
Asiatics 97				
TOTAL 398				
Crude death rate per 1,000 based on estimated population at 31/12/25...	6.0	13.2	26.9	15.4
Infantile Mortality :—				
No rates can be given because there were no European infant deaths and African and Asiatic births are not yet notified.				

SUMMARY OF DEATHS.

Classified as CERTIFIED when seen by a medical practitioner before death or certified by Post-Mortem.

,, ,, NOTIFIED when cause of death ascertained by inquiry after death.

	Certified	Notified	Total
Europeans	4	...	4
Asiatics	86	38	124
Africans	132	172	304
TOTAL ...	222	210	432

TABLE SHOWING INCIDENCE OF DEATHS OCCURRING IN DAR ES SALAAM TOWNSHIP DURING 1925.

Month	European	Asiatic	African	Total
January	...	9	20	29
February	...	6	18	24
March	...	14	26	40
April	...	13	21	34
May	...	9	19	28
June	...	6	19	25
July	1	16	32	49
August	...	13	23	36
September	...	13	21	34
October	3	5	36	44
November	...	7	31	38
December	...	13	38	51
TOTALS ...	4	124	304	432
Mean Monthly Rate ...	.33	10.33	25.33	36.00

COMPARATIVE TABLE OF DEATHS.

	European	Asiatic	African	Total
1921	7	52	170	229
1922	11	44	184	239
1923	8	79	237	325
1924	8	79	259	346
1925	4	124	304	432

SUMMARY OF MORE FREQUENT CAUSES OF DEATH.

	1924			1925		
	Certified	Notified	Total	Certified	Notified	Total
Pneumonia (all varieties)	31	31	62	45	38	83
Ankylostomiasis	19	36	55	40	34	74
Malaria, not including Blackwater Fever ...	9	1	10	9	4	13
Pyrexia of uncertain origin	3	32	35	7	31	38
Old age and natural causes	6	27	33	4	30	34
Tuberculosis of lungs	14	10	24	16	6	22
Bronchitis including undifferentiated chest complaints notified as "Kifua" ...	5	19	24	1	4	4

INFECTIVE DISEASES: PREVENTIVE MEASURES.

MOSQUITO-BORNE DISEASE.

Anti-mosquito measures were pursued on the lines of former years, the results being shown in the following tables.

The appointment of a Sanitary Engineer and Entomologist have now been approved, and there only remains to find the capital to put into a sanitary condition the permanent breeding places of mosquitoes by which the town is surrounded, by the provision of permanent drains and filling where necessary.

COMPARATIVE TABLE SHOWING COLLECTIONS OF MOSQUITO LARVÆ FOUND IN THE TOWNSHIP.

	1923	1924	1925
Anopheles	636	574	824
Culex	2,166	1,115	1,431
Stegomyia	1,457	630	1,674
TOTAL ...	4,259	2,319	3,929

ANALYSIS OF FINDINGS OF MOSQUITO LARVÆ—DAR ES SALAAM TOWNSHIP, 1925. MONTHLY TOTALS.

	Rainfall* (in inches)	Anopheline	Culex	Stegomyia
January	8.150	88	148	117
February	4.086	46	95	126
March	2.143	104	127	185
April	5.340	84	123	161
May	1.170	102	176	143
June	1.206	87	152	159
July	1.350	74	126	135
August	0.040	48	72	93
September	1.976	34	58	74
October	2.592	34	88	92
November	4.361	52	145	203
December	9.622	71	121	186
TOTAL ...	42.036	824	1.431	1.674

*Recorded at the Heath Office.

CHIEF RECORDED BREEDING PLACES OF ANOPHELINES.

	1923	1924	1925
1. Dockyard and Kurasini and seven creeks containing fresh water springs	171	183	240
2. Gerezani Valley	153	126	192
3. Town (Swampy places, Road pools and Surface drains within the actual town regularly searched by a special man) ...	125	50	123
4. Msimbazi Valley	80	123	153
5. Town (Casual finds by the Sectional Inspectors)	68	92	114

Comparative Table of Artificial Mosquito Breeding Places.

	Anopheles			Culex			Stegomyia		
	1923	1924	1925	1923	1924	1925	1923	1924	1925
Tins	...	...	...	...	13	34	...	52	245
Jars	...	...	...	...	14	14	...	60	244
Flower pots, etc.	...	...	...	...	7	...	...	8	4
Drums and Barrels	...	2	2	...	47	74	...	111	595
Roof tanks and gutters	...	...	...	...	3	...	...	7	4
Unclassified iron containers	...	1	2	...	17	25	...	28	66
Defective structure	...	1	...	...	5	...	...	3	5
Excavations and Borrowpits	...	4	7	...	1	13	...	...	...
Dhows (water containers in)	...	...	...	...	2	11	37	85	23
Tanks	3	4	3	753	85	59	1,200	225	341
Drains	...	31	31	...	100	89	...	6	4
Pools	...	24	64	...	38	90	...	1	19
Soakage and Cess pits	...	...	...	...	103	187	...	1	12
Wells	13	8	2	75	29	22	1	5	6
Rubbish	...	...	...	101	2	7	136	4	66
Gully traps and Street drains	...	...	3	138	191	172	...	...	5
Flushing Cisterns	...	...	...	...	...	3	...	...	5

The largest number of larvæ, 421, was found in May: the smallest number, 166, in September.

The greatest number (595) of Stegomyia larvæ was found in DRUMS and BARRELS.

The greatest number (187) ,, Culex larvæ was found in SOAKAGE and CESS PITS.

The greatest number (64) ,, Anopheline larvæ was found in POOLS.

Adult Mosquitoes Caught, 1925.

Anopheles	207
Culex	35,034
Stegomyia	3

The Anopheles were caught in the following buildings which are searched weekly for adult mosquitoes :—

K.A.R. Depot	On	10	occasions
,, New Mess (above Dockyard) ...	,,	10	,,
,, House No. 1 (above Gerezani Creek)	,,	—	,,
,, Old Mess (South Lines)	,,	13	,,
Gerezani Road (House No. 2)	,,	2	,,
Kichwele Street—House of Mr. Friend ...	,,	3	,,
,, ,, ,, ,, Mzee Hussein ...	,,	—	,,
,, ,, ,, ,, Fundi Mika (outskirts)	,,	4	,,
,, ,, ,, ,, Ahmed Abed do.	,,	2	,,
,, ,, ,, ,, Abdulla Kilonda	,,	2	,,
European Hospital	,,	1	,,
Park Road—House of Mr. Fraser	,,	5	,,
Main Avenue—Dar es Salaam Club	,,	2	,,

Coconut Trees.

Further searching of palm-tops by native mosquito finders was discontinued. Some investigations were pursued by Dr. Lester and will be published by him, regarding the structure of the tops of the palms and the possibilities of breeding therein.

Mosquito-borne Diseases.

Malaria. 1.—A total of 1,132 cases of Malaria was notified, of which 742 were confirmed by blood examination. Only 23 cases were definitely ascribed to infection outside Dar es Salaam. The number of fresh infections is still regrettably high, due to the lack of action in regard to Gerezani and Msimbazi Valleys.

Table of Malaria Notifications.

Year	Type of parasite		Total confirmed by blood examination	Not confirmed by blood examination	Total	Percentage of total notifications confirmed by blood examination
	Sub-tertian	Benign Tertian				
1924	503	17	520	180	700	74%
1925	732	10	742	390	1,132	65·54%

12 cases of Blackwater Fever were notified.

2. Analysis of Township areas from which the confirmed cases were notified gives the following results:—

District	Notifications	Probable source of infection
Native Quarters, Kitumbini, Karia Koo	225	Msimbazi
Arab Street	140	Gerezani
K.A.R. Mkongeni	75	Gerezani and Kurasini
School children	65	Various
Acacia Avenue ... ... — ...	55	Gerezani
Kichwele Street	37	,, and Msimbazi
Selous Sreet	30	Various
Bagamoyo Street	12	,,
Others	103	,,
	742	

The figures show an increase of 61.71% in the number of cases notified compared with 1924, and a decrease of 8.46% in the percentage of cases confirmed by blood examination.

Mosquitoes. A number of mosquitoes, taken for the most part during 1924 and early 1925, were kindly identified by Mr. Edwards of the Natural History Museum, South Kensington.

Anopheles costalis: Specimens from Dar es Salaam, Kilwa (Mpara) 1924, Itigi 1922, Singida 1922.
Anopheles mauritianus: Specimens from Dar es Salaam.
Anopheles funestus: Specimens from Dar es Salaam, Kilwa (Mpara) 1924.
Meg. (*Toxorhynchites*) *brevivalpis*: Specimens from Dar es Salaam.
Lutzia tigripes: Specimens from Dar es Salaam.
Eretmopodites quinquevittatus: Specimens from Dar es Salaam (all from a land-snail shell).
Culex nebulosus: Specimens from Dar es Salaam.
,, *univittatus*: Specimens from Kilwa, 1924.
,, *fatigans*: Specimens from Dar es Salaam.
* ,, *tritæniorhynchus*: Specimens from Dar es Salaam.
,, *aurantapex*: Specimens from Kilwa (Mpara) 1924.
* ,, *perfuscus*: Specimens from Dar es Salaam.
,, *sitiens*: Specimens from Dar es Salaam.
* ,, *trifoliatus*: Specimens from Dar es Salaam.
,, *simpsoni*: Specimens from Dar es Salaam.
**Mansonioides africanus*: Specimens from Dar es Salaam.
Aedes vittatus: Specimens from Morogoro, 1923.
,, *pembaensis*: Specimens from Dar es Salaam; all from crab holes.
,, *metallicus*: Specimens from Dar es Salaam.
**Mucidus scatophagoides*: Specimens from Dar es Salaam, 1921.
Aedes argenteus: Specimens from Dar es Salaam.

*These have not appeared before in any of the lists of Dar es Salaam mosquitoes available to the writer.

Natural enemies.—Two specimens of larvivorous fish from Gerezani Creek sent for identification to the British Museum through the Wellcome Bureau of Scientific Research have now been returned and identified as:—

Gobius criniger
Tilapia nilotica.

Other mosquito-borne diseases, Filariasis and Dengue. No records of incidence are available but active measures are taken against all breeding places of Culex and Aedes as they are found.

OTHER INSECT-BORNE DISEASES.

Plague. Valuable anti-plague measures were pursued by Mr. Humphrey until the end of the year; his report is inserted separately, see page 115.

RATS CAUGHT.

	Total rats caught	Average number of catchers employed	Average rats per catcher
1923	10,851	3	3,617*
1924	14,644	3	4,881
1925	23,154	4†	5,988

*Corrected figure.

†Includes one Askari trapping K.A.R. Cantonment from the month of June.

Rats caught:	*Rattus rattus*	23,037
	Rattus norvegicus	117
	Total	23,154

Catchers employed	4
Average number of traps used daily	200
Total number of traps laid	67,640
Percentage of rats caught per 100 traps laid ...	34.24%

Cost (without overhead charges) Labour	Shs. 908.00
Bait	,, 114.00
Depreciation of traps	,, 60.00
Total	Shs. 1,082.00

Cost per rat caught ... ... 4.67 cents

TICK-BORNE DISEASES.

Relapsing Fever:

Medical Officer, European Hospital	Medical Officer, Sewa Hadji Hospital	Medical Officer of Health	Total
3 (European)*	8	1	12

*Reported to have been contracted as follows:—

One in the Belgian Congo.
,, ,, ,, Tabora District.
,, on ,, Kilosa-Iringa Road.

Ornithodorus moubata has now been found in four native houses in Dar es Salaam; measures have been taken to eradicate them, and in one case the house was demolished and the ground burned over.

12 specimens of *O. moubata* were examined by the Director of Laboratory and none were found to be infected.

TUBERCULOSIS OF LUNGS.

	Cases notified	Deaths		
		Certified	Notified	Total
1923 (½ year)	9	17	3	20
1924	31	14	10	24
1925	52	16	6	22

PERCENTAGE OF DEATHS FROM TUBERCULOSIS OF LUNGS TO TOTAL DEATHS.

	Deaths from all causes	Deaths from Tuberculosis of lungs	Percentage of deaths from Tuberculosis of lungs
Certified deaths	222*	16	7.2
Notified ,, ...	210	6	2.85
TOTAL ...	432	22	5.0

*Includes one certified death from Tuberculous Meningitis.
,, ,, ,, ,, ,, Tuberculosis, Spinal.

LEPROSY.

STATEMENT OF INMATES AT NUNGE LEPROSY SETTLEMENT FOR THE YEAR ENDING 31st DECEMBER, 1925.

	Remaining on 31/12/24	Admissions during 1925	Total	Transferred to I.D.H.	Absconded	Died	Remaining on 31/12/25	Total
Male Adults	34	9*d*	42	1	3*b*	4	8	34
,, Children ...	3	...	3	2	...	...	2	1
Female Adults ...	33*a*	6	39	...	1*c*	3	4	36*a*
,, Children ...	1	...	1	...	...	...	...	1
TOTAL ...	71	15	85	3	4	7	14	72

a. Including one non-leper.
b. One of these patients was re-admitted to Settlement.
c. Re-admitted to Settlement.
d. Includes one re-admission from Infectious Diseases Hospital.

CLASSIFICATION OF PATIENTS AT NUNGE LEPROSY SETTLEMENT 31st DECEMBER, 1925.
(Muir's Method, see Tropical Diseases Bulletin 1924 Vol. 21 No. 11 page 371).

Nerve cases		Bacteriological cases*			Unclassified	Non-Leper	Total
(A1)	(A2)	(B1)	(B2)	(B3)			
33	34	4	...	...	...	1	72

*Includes all patients showing apparent infection of the skin apart from mere depigmentation, whether confirmed bacteriologically or not.

Some diagnoses are different from those of 1924 owing to nerve lesions supervening on bacteriological cases.

Summary of Infectious Diseases Notified During 1925.

Diseases	By S.M.O., European Hospital	By M.O., Sewa Hadji Hospital	By Medical Officer of Health	By Private Practitioners	Total
Chicken-pox	...	2	79	15	96
Leprosy	...	4	...	...	4
Mumps	...	6	...	...	6
Measles	...	...	10	...	10
Spirillum fever	3	8	1	...	12
Tuberculosis (lungs)	1	50	...	1	52
Yaws	...	5,566	...	...	5,566
Influenza	21	47	...	...	68
Enteric	3	...	...	...	3

VACCINATIONS IN DAR ES SALAAM TOWNSHIP.

Summary of Vaccination Results, 1925.

	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.	Total
Total number vaccinated	301	197	32	38	116	144	28	90	717	547	419	325	2,954
Inspected on eighth day	248	99	18	15	32	9	10	29	230	206	43	38	977
Not inspected on or after 8th day ...	53	98	14	23	84	135	18	61	487	341	376	287	1,977
Successful	120	60	9	6	20	6	6	7	110	54	14	10	422
Modified	67	18	3	...	3	2	2	1	20	12	2	5	135
Negative	61	21	6	9	9	1	2	21	100	140	27	23	420
Percentage of successful and modified cases out of those re-inspected ...	75·4%	78·8%	66·6%	40%	71·8%	88·8%	80·%	27·5%	56·5%	32·%	37·2%	39·5%	57%

Vaccinations Performed in the Dar es Salaam District.

	Town	District	Total
1923	17	...	817
1924	19,003	1,788	20,791
1925	2,954	12,375	13,329

PORT HEALTH.

Ships cleared	323
Dhows cleared	766

No cases of Infectious Disease were found on vessels arriving in harbour.

The following steamers of the British India Line were quarantined at Zanzibar, on account of the occurrence of small-pox during the voyage from Bombay to the Coast:—

Name of Steamer	Date	Disease	Occurred in
Karoa	29.3.25	Smallpox	Deck Passenger
Khandalla	15.3.25	,,	do
,, ...	9.5.25	,,	do
Karagola	5.5.25	,,	Crew (Asiatic)

INFECTIOUS DISEASES HOSPITAL, DAR ES SALAAM.

Return of Diseases and Deaths (In-Patients) for the year 1925.

Diseases	Remaining from 1924	No. of patients admitted during'25	Total No. treated during'25	No. of deaths	Remaining at end of 1925
Chickenpox	3	62	65	...	...
Leprosy...	12	36	48	1	16
Malaria (confirmed)	...	4	21	...	...
Pulmonary Tuberculosis	8	13	9	6	5
Measles	...	9	4	...	...
Strongyloides Stercoralis, admitted for suspected tuberculosis	...	1	1	...	1
Under observation	...	8	8	...	...
Pyrexia of uncertain origin	...	8	8	...	...
Mumps	...	4	4	...	...
Pneumonia	...	1	1	1	...
Occupational Dermatitis	...	1	1	...	...
Chronic Bronchitis	1	...	1	...	...
Total ...	24	147	171	8	22

Table showing Escape of Patients from Infectious Diseases Hospital, Dar es Salaam, owing to lack of adequate fence.

	Mumps	Tuberculosis of lungs	Leprosy	Total
1924	2	1	3	6
1925	...	3	6	9

SANITATION.

Sewerage and Sewage disposal.

It is hoped that the appointment of a sanitary engineer will allow at last of definite plans being prepared for a proper system of sewerage. The building activity which is taking place is multiplying the number of cesspits throughout the town and the ground surrounding them becomes less and less absorptive. Considerable increase of pumping plant will be necessary to deal with this increased amount of sewage; 921,750 gallons of cess were removed by the motor lorries during the year.

The standard of new house drainage is good on the whole and the Township Authority is able to obtain the installation of satisfactory sanitary fittings in all new buildings.

The large range closet accommodating twelve persons at the Police Barracks was completed early in the year and is working very satisfactorily indeed.

Refuse disposal.

No change in the method of collecting and disposing of refuse in open incinerators has been made. 73 ox-cart loads of refuse were burned daily. A motor lorry is expected for this service during 1926.

Water Supply.

Some progress has been made by the Public Works Department in this direction, 4317 feet of three inch main having been laid, and a new deep well sunk and brought into operation at Gerezani. 23 new buildings were connected to the main during the year, and eleven applications for connection had to be refused. The number of standpipes in the native quarter remains the same as last year (nine). These should be increased in number as early as possible, since undoubted inconvenience to the public in standing waiting their turn at the standpipes and public wells results.

Food Inspection.

This service has been vigorously tackled during the year and numbers of unsound foodstuffs, including particularly tinned goods and meat, have been voluntarily surrendered or seized.

Food Poisoning.

Two outbreaks of apparent food-poisoning were reported; one about May and one in November. Both outbreaks originated in the New Africa Hotel. On investigation the first outbreak was traced to the consumption of Prawns, and the second to the consumption of Crayfish. In the case of the Crayfish it was definitely ascertained that all the fish were alive when purchased the previous day. In all cases where the "patient" was questioned it was stated that the fish in question appeared nice and fresh when served. The Hotel is inspected regularly, and on no occasion has there been cause to criticise the method of preparing and serving the food.

Food Samples Sent to Laboratory.

Ninety-seven samples of foodstuffs were sent to the Laboratory for examination. The foodstuffs were as follows:—

Milk	51	samples
Meat	8	,,
Aerated water	23	,,
Potted meats	1	,,
Butter	2	,,
Water	5	,,
Preserved fruits	7	,,

Milk.

Six samples of milk contained less than 3.% of fat, and six samples (other than the above) contained less than 8.5% of "solids other than fat."

One vendor was prosecuted and fined Shs. 10/- for selling milk containing less than 3% of fat. This was his second offence.

The following table shows the average composition of 80 samples of milk taken in Dar es Salaam:

Specific Gravity.	Total Solids.	Solids fat.	Solids non-fat.
1029	13.35	3.74	9.70

The total solids and non-fatty solids are rather high, but the Specific Gravity and the fatty solids are about correct in comparison with the United Kingdom averages. It would appear that the high non-fatty solids indicate pollution with extraneous matter.

Average of five samples taken from Government cattle:—

Specific Gravity.	Total Solids.	Solids fat.	Solids non-fat.
1029	12.94	4.00	8.94

MEAT SAMPLES.

In five samples *Cysticercus bovis* was found.

BUTTER.

One sample of butter contained 19.4% of water. A letter was sent to the vendor informing him that this amount of water exceeded the legal limit in England.

MEDICAL INSPECTION OF SCHOOL CHILDREN AT THE GOVERNMENT SCHOOL.

The average number of scholars on the roll was 252: the average daily attendance was 206. The Health Visitor has continued her daily visits and very satisfactory work is being done. A new clinic is being erected at the school which will render the work of inspection and treatment much more pleasant.

New sanitary conveniences are badly needed at the school, both to eliminate the danger of fly-borne infection from the dry pan system in use, and to act as a practical lesson in hygiene to the scholars.

It will be seen from the table below that Ulcers cause nearly double the number of attendances from any other cause.

The amount of scabies is also unduly large and owing to the unsatisfactory home life of so many of the children it is difficult to prevent constant re-infection after treatment.

Seventy-four children received dental treatment. It has not yet been possible to arrange for a regular system of inspection by the Dental Surgeon which is undoubtedly necessary.

The card index system of inspection is being carried on successfully.

The diseases treated are summarized below:—

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Scabies	17	16	28	1	11	14	23	19	18	27	16	20	210
Malaria	3	2	9	4	3	5	10	4	2	7	11	5	65
Fever (Pyrexia of uncertain origin)	10	14	21	10	8	24	26	29	11	32	41	30	256
Ulcers	51	68	75	21	14	77	65	64	54	62	31	62	644
Ringworm	16	15	14	4	21	61	49	41	26	31	19	33	330
Pains (causes not stated)	7	4	...	...	...	...	...	...	...	...	...	...	11
Colic	13	9	10	2	4	24	9	16	2	14	6	12	121
Coughs and Colds	8	14	17	4	12	35	55	38	28	29	26	41	304
Eyes (Conjunctivitis, etc.) ...	4	9	4	2	...	2	8	9	5	8	4	5	63
Ears (Otitis Media, etc.)	1	3	2	...	1	1	...	1	1	1	2	1	14
Throats (Tonsillitis, etc.)... ...	...	...	2	1	...	14	4	1	2	1	8	2	35
Yaws	1	2	...	1	1	3	...	...	...	...	4	...	12
Impetigo	2	1	12	4	7	3	...	...	...	3	2	2	36
Jiggers	...	4	5	2	7	12	13	19	23	22	8	13	128
Mba (Tinea corporis)	2	5	8	...	27	12	9	12	6	7	4	5	97
Ankylostomiasis	...	3	1	1	...	...	...	...	2	1	1	...	9
Dental caries, etc.	...	8	10	1	1	...	11	11	2	6	10	14	74
Injuries and wounds	7	9	4	15	...	4	...	2	...	...	...	9	50
Diarrhoea	...	...	...	...	1	3	...	...	...	2	...	...	6
INFECTIOUS DISEASES:—													
Measles	...	...	...	...	...	...	1	...	...	...	...	...	1
Chickenpox	...	...	...	...	...	...	...	...	1	9	5	1	16
TOTAL fresh attendances ...	...	...	...	...	...	...	...	...	...	...	...	...	2,482

TOWN PLANNING AND TOWNSHIP AUTHORITY WORK.

The appointment of Mr. Morgan as Building Inspector on 18th March on transfer from the Public Works Department has been of the greatest value to the Township. He has found that his duties are very largely instructional as well as inspectorial owing to the poor knowledge of building construction possessed by many of the contractors in the Township, in addition to the universal desire to evade building regulations and to sacrifice safety for cheapness. Real progress is being made, however, and building activity is marked.

The Clerk to the Township Authority arrived in December and this appointment will relieve the Medical Officer of Health of the clerical work which he has hitherto had to perform.

Number of houses (stone, etc.) completed and certified ...	13
,, ,, Government houses ,, ,, ...	5
,, ,, houses of native construction erected	146
,, ,, permits issued for the construction of new privies	347

Licensed Trades.

Improvement of the premises in which these are carried on has been steadily maintained and much greater control is now exercised over the milk and food trades than was possible before. Mr. Humphrey, who possesses the Meat and Food Inspector's Certificate, deserves great credit for much difficult and unpleasant work which he has performed in connection with this work.

Summary of Licensed Trades.

Trades requiring Licenses.	Total No.	Licences	Provisional Permits	Not Licensed
Eating Houses	28	28	...	...
Aerated Water Manufacturers	2	2	...	...
Ice Cream Cool Drink } Shops	12	12	...	...
Milk Shops and Sellers	29	7 Shops	22 Sellers	...
Cowsheds	9	2	2	5
Bakers and Confectioners...	14	14	...	...
Laundries (Gerezani)	19	19	...	...

Trades requiring permits.	Total No.	Permits	No permits
Soap Boilers	4	4	...
Ghee Manufacturers	Nil	Nil	Nil
Hide Factors	13	13	...
Camel Oil Mills	8	8	...
Premises for the keeping of Horses, Cattle, Sheep, Goats, and Pigs	Not yet investigated.		
Stores for Sisal, Raw Cotton, Cotton seed or any seeds, grain or other parts of plants intended for consumption as food or fodder or for sale or export.	Ditto.		

REPORT ON THE HEALTH OF TANGA FOR THE YEAR 1925.

BY DR. R. NIXON, M.B., D.T.M., D.P.H., SANITATION OFFICER, TANGA.

Although the European population has increased by immigration the numbers of deaths, European and African, in the township and in the sub-districts, are the lowest yet recorded.

Of serious infectious disease there was one imported case of smallpox, eight cases of enteric with no deaths and forty-three cases of anthrax with twelve deaths. The anthrax epidemic occurred in the Moa sub-district during December. All the records indicate a reduced incidence of hookworm disease particularly in the township but also in the sub-districts.

The cases of sickness treated at Tanga Hospital are in excess of those of previous years but most are minor cases and the number of deaths shows a considerable reduction. The mosquito-breeding index and the house incidence of mosquitoes during 1925 are considerably the lowest yet recorded in Tanga but must be ascribed in quite large part to the low rainfall of the year. The heavy rain in October was accompanied by a slight rise in the Anopheline and the malaria indices and the malaria cases for the year are slightly in excess of those of 1924.

The main sanitary requirement of the town is an improved water-supply.

VITAL STATISTICS.

Europeans :—

The comparative figures of the last three years are :—

	1923	1924	1925
Population, ...	255.	267.	327.
Births, ...	5.	7.	8.
Birth-rate, ...	19.7	26.2	24.5
Deaths, ...	7.	5.	4.
Death-rate, ...	27.4	18.7	9.2

Two of the deaths occurred in Tanga Hospital (one from appendicitis and one from toxaemia) and the other in an outlying estate, the post-mortem diagnosis being malaria.

European Sickness.

305 cases of European sickness were treated at Tanga Hospital during the year as compared with 214 in 1924 and 302 in 1923.

They include 2 cases of enteric, 4 cases of amoebic dysentery and 2 of bacillary dysentery.

Numerically the most important lesions were :—

Malaria	45
Minor intestinal lesions	44
Influenza and catarrh	30
Minor skin lesions	28
Dental caries	17
Ear lesions	16
Wounds, bruises and sprains	15
Ulcers	14

African Births and Deaths.

The following table is compiled from the Akidas' returns, which are unreliable, and is given for comparative purposes only, on the assumption, perhaps unjustified, that the factors of error are approximately the same in different years.

	Births	Deaths	Birth-rate	Death-rate
1922	965	1335	11.6	18.8
1923	1047	1274	11.1	15.4
1924	963	1144	11.2	14.7
1925	893	948	10.3	10.9

Both births and deaths, particularly the former, are certainly estimated. The table's only value is in the comparisons.

ANTI-MOSQUITO MEASURES.

The routine anti-mosquito work has been considerably extended. The comparative figures are as follows:—

Number of Inspections:—

	1924	1925.
Houses and compounds	65,667	133,536
Drains	14,365	17,193
Pits	70,656	131,886
Wells and waterholes	8,378	21,418
Tanks and barrels	115,724	261,623

The collections of mosquito-larvae found during the last three years are:—

1923	2,486
1924	3,664
1925	4,022

The mosquito-index (collections of larvae per hundred inspections of premises) is considerably the lowest recorded since systematic searching was adopted. The indices are:—

1923	5.2
1924	5.6
1925	3.0

The analysis of the collections of 1925 is as follows:—

	Culex.	Steg.	Anoph.	Others.	Total.
In household receptacles ...	807	1,373	38	5	2,223
,, casual water	623	451	70	8	1,152
,, wells and waterdoles ...	381	106	25	3	515
,, pits	121	8	0	3	132
	1,932	1,938	133	19	4,022

The collections, therefore, consist of:—

Stegomyia	48.18%
Culex	48.04%
Anopheles	3.31%
Others	.47%

The above table for clearness can be condensed to a percentage basis roughly as follows:—

	Culex	Steg.	Anoph.	Total
In household receptacles	20	34	1	55
,, casual water	16	11	2	29
,, wells and waterholes	9	3	1	13
,, pits	3	0	0	3
	48	48	4	100

Owing to the failure of the heavy rains in April and a compensatory increase in the rainfall of the later months of the year the mosquito-incidence curve of 1925 is an extraordinary one. During the first seven months of the year mosquitoes were exceptionally few and the curve touched its minimum in April and May, the months which normally show the highest incidence. The curve touched its maximum in October, the rainiest month of 1925, and during the last three months of the year house-incidence of mosquitoes was higher than in the early part of the year. Towards the end of December, however, the incidence was again low.

There is no doubt that, taking the year as a whole, 1925 has been, from an anti-mosquito point of view, the best year the town of Tanga has had since the war.

MALARIA.

The cases of malaria treated at Tanga Hospital show an increase on last year's figures in spite of the decrease in mosquitoes. The comparative figures are:—

	1923	1924	1925.
European cases	55	34	50
Non-European cases	1,151	762	1,210

Very few of the European cases are primary attacks and it remains extremely rare for malaria infection to be acquired within the European town.

SMALLPOX.

Although Tanga has been in regular communication with Mombasa by sea and Moshi by rail, both of which have been heavily infected with smallpox during the year, one case only has been imported into Tanga and no local case developed from this.

The imported case was a man from the border of the Moshi district who arrived in Tanga by train on June 16th with a well-developed attack of the disease. He was apprehended at the station, isolated with contacts in the Infectious Diseases Hospital and was discharged on his recovery 20 days later. No second case occurred.

The smallpox record of Tanga district from 1920-1925 is:—

	1920	1921	1922	1923	1924	1925.
Cases ...	1,823	412	82	81	0	1
Deaths ...	752	136	14	16	0	0

4,444 vaccinations were performed at the Health Office during the year but, as the large majority were travellers, the results are uncertain. The percentage of natives in the district who have now been vaccinated is high.

ANKYLOSTOMIASIS.

All the records indicate a diminished incidence of hookworm, particularly in the township but also in the sub-districts.

Tanga Hospital figures are as follows:

	1924	1925.
Number of cases	1,365	1,176
Percentage of total cases	14	8
Number of deaths	50	28
Percentage of total deaths	50	35

Tanga Government School figures are:—

	1924	1925.
Number of cases	54	26

26 cases in a school of 350 boys, none of whom were so heavily infected as to be in any danger, indicates that amongst the natives in the town, at any rate those with discipline and some knowledge of hygiene, hookworm has ceased to be a serious menace. Tanga schoolboys cannot, of course, provide a reliable index of the prevalence of the disease throughout the district.

The akidas of the sub-districts make a monthly return of the deaths in their districts. Very little reliance can be placed on their diagnosis and a brief extract only is given.

	1921	1922	1923	1924	1925.
Number of deaths attributed to hookworm	444	284	189	241	149
Death-rate per 1,000 due to hookworm ...	5.2	3.3	2.2	2.8	1.7
Percentage of total deaths attributed to hookworm	28	21	15	21	15

During 1926 a campaign will be started at Muheza, a town in the centre of a sub-district from which is reported a high incidence of ankylostomiasis. It is hoped that there will be an even more marked reduction of the disease by the end of the year.

SCHISTOSOMIASIS.

100 cases of schistosomiasis were treated at Tanga Hospital as compared with 107 in 1924. 49 cases occurred in the Government School as compared with 27 last year. July and August—dry months—were the months of highest incidence. Search has failed to reveal *Bullinus* in the district or any suspicious water condition common to any large group of cases. The generally accepted aetiology of this disease does not appear to cover the Tanga cases.

BERIBERI.

The drought of the early months of the year resulted in failure of crops and deficiency of food in the districts. It was not surprising to find deficiency disease in Moa, Muheza and elsewhere and 38 cases of beriberi were admitted to Tanga Hospital.

To obviate a recurrence certain estates have arranged to hold large stocks of food in future and to pay their labour a food ration in lieu of part of their wages.

ANTHRAX.

An epidemic of anthrax broke out round Kilulu, a cattle district with scattered villages, during December. Of 43 natives attacked 12 died within 48 hours of the appearance of the pustule. The cases were segregated and visited from Tanga. Of the other 31 cases, 2 have extensive but healing ulceration and the remaining 29 made a complete recovery.

The epidemic appears to have run its course at the end of the year.

TETANUS.

Three cases of tetanus occurred during the year, all fatal. Similar sporadic cases were reported in Tanga in 1918 and in 1922.

Operation cases and wounds now receive routine injections of anti-tetanic serum.

YAWS.

630 cases are reported as compared with 409 last year. No deaths occurred and the majority of cases under treatment were cured or improved. The more infectious cases have been housed in the Infectious Diseases Hospital while under treatment. Of 69 cases admitted to hospital 64 have been discharged cured.

PULMONARY TUBERCULOSIS.

57 cases with 20 deaths are reported as compared with 37 cases and 8 deaths last year. A probable factor in the increase is the epidemic influenza of 1925.

INFLUENZA.

Numerically influenza and bronchial catarrh dominate the sick returns of the last six months. The disease is, however, of a mild type (about a week of low fever with catarrh and depression) and no death has been ascribed to it.

The cases under treatment numbered 30 Europeans and 1,847 Non-Europeans The European figure is an under-estimate for many cases did not report sick with the attack.

INFECTIOUS DISEASES HOSPITAL.

The admissions to the I.D.H. during 1925 were:—

Smallpox	1
Smallpox contacts	3
Chickenpox	6
Pulmonary Tuberculosis	11
Yaws	38

3 deaths occurred, all from pulmonary tuberculosis.

PORT HEALTH WORK.

The port work has increased, 200 steamers and 697 dhows having been cleared during the year as compared with 154 steamers and 609 dhows in 1924.

No infectious disease has entered the town through the port during the year.

VETERINARY WORK.

In the absence of any veterinary official the care of the slaughter house and routine meat inspection has fallen on this office. A detailed report on the meat inspection has been sent to the Chief Veterinary Officer. The following is a short summary of the work:—

Animals inspected	2,110 bullocks
	3,166 sheep
	3 pigs
Carcases condemned	5
Portions condemned	484 livers
	150 lungs
	74 stomachs
	116 other portions.

NATIVE HOUSING AND TOWN PLANNING.

The supervision of building and the alignment of houses has fallen entirely under this office during the past year. 368 permits to build and 373 permits to repair have been issued and all these sites and houses have been inspected. On the whole the native town contains good houses in good alignment but much remains to be done on its outer fringes particularly in the Tabora Street district.

The arrival of the District Surveyor in December has already proved of value in the native town planning.

ARBORICULTURE.

Although Tanga has far too many trees and a removal of existing ones is more desirable than the planting of new there are certain lines of trees in the town which should certainly be maintained. King Street and Market Street require shade trees but the present ones are degenerated and unsightly. During the year Acacia seedlings have been planted at intervals for about 400 yards of King Street, and also round the Market Square. It is hoped that, when these are old enough, many of the degenerated existing trees can be removed.

REFUSE COLLECTION.

During the year 18,854 cartloads of refuse have been collected and burnt at the incinerators.

The products of incineration have been used mainly for the filling of the Hospital Road and Nahoza Street swamps.

GRASS-CUTTING AND DRAIN-CLEANING.

During the year 3,970,000 square yards of grass-cutting and 870,000 linear yards of drain-cleaning has been performed by this Office.

EDUCATION.

Two sanitary inspectors at this office (David Marks and Petro Kukuti) sat for the examination in elementary hygiene and satisfied the examiners.

16 probationer district sanitary inspectors have been trained at this office during the last four months and are now ready for posting to out-stations.

A report on Tanga Government School is contained in an appendix.

METEOROLOGY.

The rainfall of 1925 was extraordinary. Very little rain fell between March and May, which is normally far the rainiest period of the year, and the wettest month was October, normally the driest.

	Rainfall in inches.	Temperature. Maximum.	Minimum.	Mean.
January	3.9	30.3	25.5	27.3
February	1.6	29.6	25.8	27.5
March	1.7	30.4	25.9	28.1
April	1.9	30.5	27.0	28.9
May	2.1	29.3	25.6	27.2
June	4.2	28.2	23.4	25.6
July	2.8	27.2	23.6	24.7
August	5.4	27.2	22.6	24.2
September	2.2	27.6	22.1	25.4
October	10.5	28.8	24.3	26.6
November	2.8	29.4	25.3	27.3
December	5.9	30.1	25.7	27.8

The total rainfall of the year is 45.0 inches as compared with 45.5 inches in 1924.

RETURN OF STATISTICS OF POPULATION FOR THE YEAR.

	Europeans	Africans	Asiatics
Number of inhabitants in 1924	267	86,423	2,447
,, ,, births during the year 1925	8	893	...
,, ,, deaths ,, ,, ,, ,, ...	3	948	30
Immigrants during the year 1925	125	...	...
Emigrants	70	...	...
Number of inhabitants in 1925	327	86,368	2,447
Increase of inhabitants in 1925	60	...	...
Decrease	...	55	...

The native population as estimated by the administration from tax returns is 105,000.

Year	Number of Natives		Number of Europeans		Totals
	Male	Female	Male	Female	
1923	8,000	8,023	105	45	16,173
1924	7,990	8,013	110	45	16,158
1925	7,990	8,000	135	55	16,180

These figures are rough estimates only.

REPORT ON THE HEALTH OF TANGA GOVERNMENT SCHOOL FOR 1925.

There is again marked progress to record for the year. The water-supply has been improved by connection to the railway main supply. The schoolboys' latrines have been reconstructed and a native water-closet system installed.

Regular football has been organised and supervised and although four minor fractures and numerous bruises have resulted no boy has received any permanent damage and the games have certainly produced a real improvement in the spirit, manners and the health of the school.

Gymnastic equipment, including rings, bars and giant's stride, has been erected in the school playground and is in regular use by the boys.

Drill and bathing parades are carried on as in 1924.

School Dispensary.—There were 2068 cases under treatment as compared with 1711 last year but as the number of scholars increased from 300 to 350 the rate of attendance at sick parade remains much the same. The bulk of the cases are very minor cases; cuts and bruises, small ulcers, coughs and colds and minor intestinal disturbances are the predominant lesions.

The following are the most interesting of the comparative figures:—

	1924	1925
Malaria	93	109
Influenza	5	121
Schistosomiasis	27	49
Yaws	12	48
Ankylostomiasis	54	26
Filariasis	15	15
Gonorrhoea	11	8

There has been no small-pox, mumps or measles and one case only of chicken-pox during 1925.

The monthly incidence of the more important diseases was as follows:—

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Malaria	8	10	5	2	—	8	6	5	2	32	19	12
Influenza	2	—	—	—	—	44	29	8	8	15	3	12
Schistosomiasis	1	3	2	2	—	—	13	16	5	6	1	—
Yaws	2	6	6	5	2	8	5	—	1	2	7	4
Ankylostomiasis	2	5	2	2	—	1	5	1	2	6	—	—
Filariasis	1	1	1	1	—	—	4	1	3	—	4	1

Malaria.—109 attacks of malaria in a year in a school of 350 must be considered a satisfactory record. Except during October, the rainiest month of 1925, the duty lost through malaria was almost negligible. The low incidence of last year has been maintained.

Influenza.—Influenza attacked the school in mildly epidemic proportions after the holidays. Both school and town have shown several cases monthly up to the end of the year.

Schistosomiasis—I have not been able to find *Bullinus* in Tanga nor any suspicious water condition common to the infected 49 scholars. July and August were the months of highest incidence and also months of drought when fresh water was not commonly used for bathing. Most of the infected during these months stated that they bathed only in the sea. It would seem that there is another than the accepted method by which the schistosome enters the human body.

Yaws.—The yaws incidence has increased but the infected have all received injections and have recovered from the disease.

Ankylostomiasis.—This is a surprisingly low figure for an area generally believed to be heavily infected. Of course the schoolboys, some living in the school and most living in the town, do not accurately reflect district conditions. It is however, gratifying to note the low incidence and the reduction.

Filariasis.—These are disappointing cases and some have had to leave school owing to their inability to perform sustained work.

Smallpox and Vaccination.—All boys who appeared inadequately protected have been vaccinated or re-vaccinated during the year.

In spite of the Moshi epidemic one case only occurred in the town and none in the school.

EXTRACT FROM THE ANNUAL SANITATION REPORT FOR THE YEAR 1925.
FOR THE TABORA DISTRICT.

BY DR. A. I. MEEK, L.R.C.P., L.R.C.S., D.P.H., L.R.F.P., & S.,
SANITATION OFFICER, TABORA.

(I) ADMINISTRATION.

The Sanitation Staff consists of:—

(a) Sanitation Officer	1
(b) European Sanitary Superintendent	1
(c) Native Sanitary Inspectors	16
(d) Native Vaccinator	1
(e) Sanitary Labourers—average	89

Maternity and Child Welfare Centre:—

(a) Nursing Sister	1
(b) Ayah	1

MOVEMENTS OF STAFF.

Doctor Suffern was in charge until the arrival for duty of Dr. A. I. Meek on the 27th March, 1925.

Mr. C. Harlen, Sanitary Superintendent, arrived for duty from Dar es Salaam on the 11th September, 1925, in relief of Mr. T. Bell, Sanitary Superintendent, who proceeded on leave to England on 22nd September, 1925.

Miss A. L. Ryder, Nursing Sister, arrived for duty to establish a Child Welfare and Maternity Centre in Tabora on the 4th October, 1925.

13 Natives were trained as District Native Sanitary Inspectors from the 1st August to the 25th November, 1925, and were then posted to the out-districts for duty.

GENERAL NATIVE POPULATION.

VITAL STATISTICS.

Approximate Native Population—Tabora Township	20,000
African Native Births Notified (*Month of December only*)	17
African Native Deaths under one year notified in December	3
African Native Infantile Mortality figure for December	176
African Native Deaths notified for the year	218
(125 by Akidas and 93 by Tabora Hospital).	
African Native Death Rate per 1,000 living	10.9

Notification of Births and Deaths is now compulsory and appears to be reliable.

PREVENTIVE MEASURES.

Mosquito and Insect Borne Diseases.

ANTI-MOSQUITO WORK. (INCLUDING OUT DISTRICT WORK).

Malaria:—

Premises inspected	45,612
Collections of larvæ found	2,317
Anopheline	41%
Culex	49%
Stegomyia	10%
Prosecutions	4
Convictions	4
Notices served for Mosquito Nuisances	9
Drains inspected	5,378
Cesspits and Soakage pits inspected	47,214
Pools inspected and oiled	5,611
Wells inspected	4,689
Tanks and Barrels inspected	106,894

Yards of drains cleared	20,544
Yards of new drains dug	6,040
Holes and excavations filled in	63
Gallons of Kerosine used	141

From January to May the rains were small and larvae collections were found only in the swampy areas of Kitete, Rufita and Chem Chem.

The months of June to October were dry and the swamps dried up with the exception of the larger pools; and even most of the latter disappeared in September and October so that the Township was particularly free from mosquitoes during these months.

Several defective soakage pits were found to provide culex mosquitoes with a suitable breeding place and a few collections of larvae were also obtained from wells and compounds.

The phenomenal rains of November and December were responsible for nearly three-quarters of the total collections for the year. All low-lying places were waterlogged and provided myriads of natural breeding places for anopheles. A special mosquito brigade campaign under the personal supervision of the Sanitation Officer and Sanitary Superintendent was organised in December when 3,450 pools were inspected and oiled, 1,471 collections of larvae were found in pools, 36 in compounds, 32 in drains and 14 in wells, making a total of 1,553, 45% of which were anopheline. 46 gallons of kerosine had to be used in order to cope with the situation.

A scheme for the drainage of the Kitete and Chem Chem swamps was submitted by the Executive Engineer and a special vote applied for to cover the cost of same.

TICK FEVER—ANTI-SPIRILLUM WORK.

46 collections of *Ornithodorus Moubata* were found during the year. Five of these were collected at the K.A.R. cantonment, including two collections from quarters occupied by European other ranks, two from servants' quarters and one from the porters' Lines. The European quarters, being in a very bad state of repair, were demolished, the servants' quarters repaired and the porters' huts plastered inside with a mixture of cow dung and clay every month as a preventive measure.

The remaining 41 collections were found in Asiatic and Native dwellings in the Township. The dilapidated dwellings concerned were demolished.

A total of 7 dilapidated buildings and 131 native huts were demolished during the year. 5 buildings and 16 native huts were demolished by the owners. The Public Health Department carried out the work of clearing away the remainder.

Epidemic Diseases.

Smallpox:—

During the year 3 Native and 1 Asiatic cases of smallpox were notified at Tabora, 3 native cases at Shinyanga, and 2 native cases at Kahama. 1 native died at Tabora and 1 at Shinyanga. The cases occurred during the months of September and October.

The first two cases at Tabora were found to have contracted infection at the Kasulu sub-district of Kigoma, the remaining two (including Asiatic) in the township. The later two cases were concealed and were noted during the course of house to house inspection.

The following preventive measures were carried out:—

1. Four cases and 36 immediate contacts were isolated at the Tabora Quarantine station.
2. Appropriate disinfection measures were carried out.
3. Vaccination of contacts, immediate and remote.
4. House to house inspection and vaccination where necessary.
5. Inspection and vaccination when necessary of all in coming and outgoing

Native and Asiatic travellers by trains.

6. Inspection and vaccination of all travellers to and from the out-districts.

7. Inspection and vaccination of personnel attached to K.A.R.'s, Police and Prisons, School, Railway, Public Works, Health Department, Political, Postal Department, etc.

8. Circulars were issued throughout the township with regard to the concealment of infectious disease and in connection with the inspection and vaccination of travellers, etc.

4644 vaccinations were performed at the Railway Station and Health Office (September—December).

1017 Travelling Permits were issued at the Health Office (September—December).

During the year a total of 27,368 vaccinations were performed in the district. 64.4% of those vaccinated were re-examined; of this number 74.8% of successful results, 14.8% of modified successful and 10.4% of failure were noted.

The Public Works Department completed the four-roomed, stone-built hut and fenced in two compounds for the quarantine of smallpox patients and contacts. 14 grass bandas, an incinerator, disinfector and latrines were also erected by the Health Department.

Chickenpox.—43 cases were notified from the Township including 1 European and 27 cases at the Government School. 18 cases were notified from the out-districts.

The cases were isolated and other preventive measures carried out.

Mumps.—29 cases were notified in the Township—including 23 cases at the Government School. The cases were isolated and other precautionary measures taken. It has been noted that these cases do not exhibit the orthodox clinical picture of mumps, in that the glandular swelling is in most cases more prominent in the sub-maxillary region and at no time has orchitis been known to develop, as observed by the Senior Medical Officer, Tabora. The disease however appears to be infectious.

Influenza.—3 cases were notified from the Shinyanga district.

Typhoid Fever.—One case (European) contracted infection in the Township, one Asiatic Railway driver, and three Native K.A.R. askaris in the out-districts. One Asiatic death was notified.

A supply of T.A.B. Vaccine has been obtained and a notice circulated, advising European and Asiatic residents to become inoculated. Very few Europeans appeared to be willing to take advantage of this means of protection. At the end of the year however, several Europeans and a large number of Asiatics signified their willingness to become inoculated, and this work is now being carried out. No inoculations were performed during 1925.

Helminthic Diseases.

Bilharzia.—An attempt was made to ascertain the incidence of Urinary Bilharzia among natives. The urines of young school children at Tabora and Usoke and adult prisoners at Tabora Gaol were examined. 35% of children and 15% of adults were found to be infected with *Schistosoma haematobium.* 77 cases in all were noted as follows:—

A. YOUNG SCHOOL CHILDREN.

	Number Examined.	Number Infected.
Tabora Government School	88	37
Usoke Government School	61	19
Native School—Rufita, Tabora	15	2
Native School—Main Street, Tabora	11	4
	175	62

B. Adults.

	Number Examined.	Number Infected.
Tabora Prison	100	15

The infected school children seen at Tabora included cases having their origin in Tabora, Shinyanga, Kahama and Nzega. About half the number of these cases appeared to have been infected at Shinyanga.

At Tabora collections of Fresh Water molluscs were found in pools at Rufita, Mwanza Road, Main Street, and Chem Chem. These were forwarded for identification to Dr. Corson, Acting Director of Laboratory, Dar es Salaam. Two species were identified as *Isidora nasuta* (found in the four above districts) and *Lanistes ovum*—Peters.

Of the snails dissected at Tabora, forked-tailed cercariae without eye spots were noted in *Isidora nasuta* from the Rufita pool. The majority of cases having their origin at Tabora appeared to have been infected at this pool.

GENERAL MEASURES OF SANITATION.

Railway Sanitation:—Itigi to Kigoma.

An inspection of the line from Itigi to Kigoma was carried out.

The general cleanliness of station premises was found to be satisfactory. Recommendations were given for the improvement of Asiatic and Native latrines, sanitation of gang camps, wells, etc., and structural alterations to several station buildings.

Mosquitoes have been found breeding in large numbers in the Railway area at Tabora and preventive measures carried out by this Department. The swampy area at Rufita was mainly responsible.

Breeding places for mosquitoes also appear to be in evidence at many of the other stations but principally at Malagarasi.

From January to August a Railway Sanitary Inspector (European) was stationed at Tabora to attend to the sanitation of the line from Itigi to Kigoma. From September to December there was only one European Sanitary Inspector stationed at Morogoro for the whole line from Dar es Salaam to Kigoma, consequently the sanitation had to be left more or less under Native supervision at Tabora. Frequent visits, however, were made by the staff of this office, especially to the swampy area around the station and at Rufita, to ensure that known breeding places for larvae were kept oiled or drained.. An arrangement was made for the District Engineer to supply the necessary kerosine for this purpose.

The District Engineer (Railways) was asked to submit a scheme for the better drainage of swampy areas within the Railway boundaries.

Township Authority Work.

The following were the principal subjects brought up for consideration and work carried out:—

Wattle and daub huts for servants not to be erected in connection with European dwellings.

An area of land in the vicinity of European houses at School and Mission Streets was cleared of native huts and pombe shops in order to create an open space between Residential and Native areas.

A complete survey of the Township is in the course of preparation. Owing to the fact that only one Survey Officer is available for the district, a considerable time must elapse before completion.

A standard type of two, three and four-roomed hut with corresponding standard size of compound was instituted and applied with reference to new huts built during the year. The District Surveyor in conjunction with the Sanitation Officer made weekly inspections in the Native area and endeavoured to clear up congested areas and lay out plots for new huts.

A section of the Chem Chem area in the native village to be laid out into standard plots and utilized for the future extension of the native building area.

The Railway Department was asked to give a definite decision as to the boundaries of their land at Tabora. This was necessary in order to prevent the encroachment of native building area on to Railway land and to enable the Authority to retract the Township boundaries within a definite workable area.

The site for the Child Welfare Centre on the plot of ground at the west end of School and Mission Streets was approved.

Sites for Transport Office and Store building for the storage of petrol chosen.

Improvement to Railway Asiatic Quarters sanctioned.

Site for Goanese club selected.

Directions of proposed new water mains for the supply of the native township decided upon.

Site for procuring "clay" for the building of native huts chosen.

Improvements in connection with the slaughter, transport, and sale of meat carried out.

Arrangements for the pounding of stray animals instituted.

Improvements to roads submitted by the Executive Engineer, Public Works Department, approved.

Agreed that when funds are available a milk supply centre should be established.

Permit to erect a groundnut crushing factory granted.

A native building inspector was attached to the Township Authority for duty in connection with native buildings.

New buildings erected	10
New huts erected	38
New kitchens for native huts erected	42
Repairs to native huts approved and carried out	771
Houses demolished	7
Native huts demolished	131
Prosecution for building hut without permission	1
Prosecution for keeping animals in hut without permission (both cases convicted).	1

CEMETERIES.

All cemeteries were maintained in a clean condition by this department during the year.

The issuing of Burial Permits was commenced in the month of May. 132 were issued during the year.

43 burials were performed by this Department.

A cemetery at Urambo was laid out for native burials. Unfortunately this cemetery was waterlogged during the heavy rains of November and December and unfit for burials at that period.

A new native cemetery was laid out at the Ngambo dstrict. This cemetery was not seriously affected by the rains and was utilised also for burials from the Urambo area during the wet months.

A section of each native cemetery was allotted for Arab burials. The Belgian Memorial cemetery was relaid and planted with shrubs. The K.A.R. war graves cemetery was hedged.

An extension was made to the European cemetery, a new hedge planted and improvements to drainage carried out.

The War Graves Commission prepared the British war graves for the erection of headstones.

Thirty-one new burial grounds were laid out in the out-districts by the District Native Sanitary Inspectors.

GOVERNMENT SCHOOL, TABORA.

1.—Medical Inspection.

Regular inspections of school and pupils were carried out twice weekly during the session.

The children are, on the whole, of good physique and nutrition, the standard of cleanliness is very high, and the general health of pupils, notwithstanding the occurrence of a considerable incidence of chickenpox, mumps and bilharzia, was well maintained during the year.

A detailed medical inspection of eight-two children was carried out, when the following conditions were noted :—

Enlargement of Spleen	15
Chronic Tonsillitis	14
Femoral Adenitis	8
Pharyngitis	7
Decayed Teeth	6
Defective Eyesight	5
Acute Tonsillitis	3
Elongated Uvula	2
Cardiac Disease	2
Ulcers	2
Anaemia (sec. to Bilharzia)	2
Pyorrhoea Alveolaris	2
Scabies	1
Phimosis	1
Urethritis	1
Inguinal Hernia	1
Elephantiasis	1
Umbilical Hernia	1
Deformed Feet	1
Bronchitis	1

Where possible, treatment was applied for the conditions.

2.—Epidemic Diseases.

1. *Mumps.*—23 cases occurred. Cases and contacts were isolated at the school and disinfection of clothing and bedding periodically carried out. All children were given an antiseptic gargle twice daily as a prophylactic measure and pupils were prohibited from visiting the town.

2. *Chickenpox.*—27 cases occurred. The cases and contacts were isolated at the school and other preventive measures taken.

3. *Vaccination.*—Vaccination of all pupils, teachers and families was performed, when smallpox existed in the township. 122 vaccinations in all were carried out.

3.—Bilharzia.

88 pupils were examined with a view to ascertaining the incidence of urinary bilharzia. 37 cases were detected. The infection was contracted at Shinyanga, Kahama, Nzega and Tabora Districts. About half the number of children appeared to have been infected at Shinyanga. The cases were treated at Hospital

4.—SANITARY MEASURES.

1. *Latrines.*—The pit system was abolished and pan system instituted.

2. *Incinerator.*—An incinerator was provided and a sweeper employed by Education Department to attend to this work and latrine sanitation.

3. *Disinfection.*—A steam disinfector, after the Serbian barrel type, was constructed. This was necessary for the disinfection of clothing as a preventive against lice infestation. An issue of two sets of clothing was also brought into operation to assist in this connection.

Disinfection of school premises was carried out weekly by the Health Department during the year.

4. *Water Supply.*—A pipe-born supply from Kitete was instituted.

MARKETS.

Formerly the meat market was sub-divided into compartments by wire meshing. This proved a serious obstacle to the efficient cleansing of the market in that floors could not be properly swilled down, the through ventilation was obstructed and flies greatly in evidence. All the outer meshing was removed, leaving only a small fly proof compartment for each stall. Floors were repaired and better drainage provided.

The daily cleansing of the market is carried out by this Department, the markets being closed down at 5 p.m. each evening for this purpose. A weekly spraying out with disinfectant is also done.

A special market is allotted for the sale of pombe, and with the exception of the shop at the K.A.R. cantonment, the sale of pombe is only allowed in the public market.

Three prosecutions for wearing dirty clothing in the meat market were carried out. The offenders were convicted and fined.

DRAINAGE.

Reference has already been made to the necessity for the laying of masonry drains through the Kitete and Chem Chem swamps. Masonry drains are also required for the main streets of the native area. In many places it is impossible to dig earth drains deep enough to carry away surface water as these drains collapse with the first rain that comes.

WATER SUPPLY.

Two additional wells were dug during the year to augment the existing supply at Kitete, an electric pump was installed and another tank erected on Kaseh Hill. At the end of the year the work of laying branch mains, to the Government School and Headmaster's Quarters, to several K.A.R. European Quarters and to the European Government Quarters in the vicinity of Post and Mission Streets, was commenced. All supply taps are being laid on to the kitchens or inside the quarters and not in the open compounds as formerly.

A new 2½ in. main in place of old 1½ in. one has been laid on from the tanks on Kaseh Hill to the European residences, etc. Experiments were carried out with a view to clearing the water by means of the lime sedimentation process. It is anticipated, however, that a large concrete tank will have to be provided before this can be done on a large scale.

HOUSING.

Reference has been made under Township Authority Work to the question of Native Housing. With regard to the housing of European officials this subject has been very acute throughout the year and great difficulty has been experienced in making adequate provision. As many as nine officials at one time were forced to live in tents or grass bandas or put up at the hotel, while several officers were unable to be posted to this station on account of quarters not being available.

Two new European houses were built during the year for the School and Political Departments. One of these however was seriously damaged by being undermined during the heavy rains of November and December.

WHITE ANTS.

It was noticed that a large number of buildings in the township suffered from depredation by white ants. An effort was made to exterminate the pest with a certain amount of success. Sixty queens were dug up in the vicinity of buildings during the year, and where the queen was inaccessible a solution of arsenite of soda was poured into the runs. As many as five queens were dug up from one building.

CONSERVANCY.

New latrines for Police Askaris and their families, and also for Prison Warders were built during the year.

A public latrine is required at the public laundry and will be built as soon as funds are available next financial year.

Hitherto all excreta have been incinerated. Owing the breeding of flies in the vicinity of incinerators, the trenching system was introduced in the case of excreta other than that from hospital and quarantine camp. During a part of the year, under strict supervision, this system was carried out with success.

HEALTH OFFICES.

The former office consisting of one small room at the Boma was found to be unsuitable as regards position and accommodation. Suitable premises at the building formerly known as the Grand Hotel in Livingstone Road which is in close proximity to the native area, were taken over on the 1st July at a monthly rental of Shs. 75/- on a yearly lease with the option of a second year.

No doubt in the near future the question of having a permanent building erected will have to be considered. In view of this a suitable site at the west end of Mission and School Streets, where the Child Welfare centre is at present in the course of erection, was selected.

CHILD WELFARE WORK.

October to December.

Number of children inspected	1527
,, ,, ,, treated for minor ailments	617
,, ,, ,, examined at schools	454
,, ,, visits to new births in town	37
,, ,, ,, ,, still birth case in town	3
,, ,, ,, Quarantine Station	18
,, ,, children vaccinated	377
Number of children seen and admitted to hospital for treatment from K.A.R. Clinic	8

One sick child treated at village Kazima.

One visit to Government Gaol for inspection and vaccination of female and juvenile prisoners.

Instruction in Child Welfare Work given to Probationary District Native Sanitary Inspectors.

Arrangement for compulsory notification of births carried out. Akidas and Sultans of the sub-district and town instructed as to the objects of the clinic.

Erection of new clinic buildings commenced.

Temporary clinics started at K.A.R. lines and Health Office.

One native ayah engaged at a salary of Shs. 15/- p.m.

One District Native Sanitary Inspector retained for assisting in the work of the clinic.

Arrangements for supply of equipment for clinic carried out.

DEPARTMENTAL OXEN.

Three oxen died during the year. The Veterinary Officer attributed death as due to Trypanosomiasis.

Difficulty was experienced during the dry months of the year in obtaining an adequate supply for suitable food for the oxen. A new cattle boma was erected during the year.

DISTRICT NATIVE SANITARY INSPECTORS' WORK.

Details of work done in 10 out-districts:—	November (1 week only) and December.
Number of house inspections made	6912
Collections of mosquito larvæ found (Anopheles 78, Culex 116, Stegomyia 61)	255
Drains inspected	724
Cesspits and soakage pits inspected	793
Pools inspected	319
Wells inspected	1046
Areas inspected by Mosquito finders	10
Tanks and barrels inspected	12954
Collections of fly maggots found	109
,, ,, Spirillum ticks found	1
,, ,, Bullinus Molluscs found	3
New pit latrines ordered to be dug	2308
Dumps of rubbish removed	2246
Rats caught	141
Burial permits issued (verbal)	2308
New burial grounds laid out	31
Yards of drains cleared	200
,, ,, new drains dug	366

DETAILS OF OTHER WORK DONE. (including out-districts).

Total number of pit latrines ordered to be dug	2707
,, collections of fly maggots found	406
,, number of rats caught	441

EDUCATIONAL WORK.

Classes were commenced on the 1st of August for District Native Sanitary Inspectors. In addition to the subjects of Hygiene and Elementary Sanitation the Inspectors were given instruction in Child Welfare work.

The Inspectors attached to the Health Office and the Akidas of the Township were also given instruction from time to time, and the Sultans and Chiefs of the district received instruction at a Baraza in November at Itetemia.

SANITARY LABOUR.

An additional vote of about Shs. 2,000 is required to provide extra labour for general sanitary work such as grass cutting, digging and clearing of drains, etc., during the wet months of the year.

CONVICT LABOUR.

A small number of Convicts have been available from time to time during the year.

These have been employed in the demolition of dilapidated native huts.

METEOROLOGICAL NOTES.

Total rainfall for the year	1303.5 mm
Average daily rainfall for the year	3.5 mm
Heaviest rainfall on any one day during the year, (22nd November)	111.5 mm
Number of days rain fell	133
Number of months in which rain was recorded	10

Highest monthly rainfall recorded, (November)	589.3 mm
Average maximum temperature during the year	30.9 C
Average minimum temperature during the year	17.8 C
Highest maximum temperature recorded, (September)	39.0 C
Lowest maximum temperature recorded, (February)	21.9 C
Highest minimum temperature recorded, (January)	24.0 C
Lowest minimum temperature recorded, (July)	11.5 C

Heavy rain fell in November and December. 67 mm. fell in one hour and a quarter on the 22nd November and 76.5 mm. in one hour on the 29th November, 1925.

The weather since October has been very unsettled. Several very bad thunderstorms in close proximity to Tabora playing havoc with the electric light occurred in November and December. The heavy rains which occurred practically daily from the 11th to the 30th November were the cause of severe flooding in both town and out-district and damaged a large number of native huts, roads, drains, culverts, bridges, etc.

A detailed meteorological return is appended.

RETURNS OF STATISTICS OF THE POPULATION OF THE DISTRICT FOR THE YEAR 1925.

	European	African	Asiatic
*Number of inhabitants in 1924	Approximate total 518,100		
,, births in 1925	6	17†	not known
,, deaths in 1925	3	218	8
* ,, inhabitants in 1925	Approximate total 518,100		

*Exact figures are not available.

†During the month of December only.

TABORA TOWNSHIP.

‡Approximate area of town: 2,200 acres.

‡Number of proclaimed open spaces: 3 (not yet proclaimed in *Gazette*).

‡Population of the Township: Approximately 20,000 of all communities.

‡The figures are the same for 1923, 1924 and 1925.

INSPECTIONS AND PROSECUTIONS.

	1923	1924	1925	
			Tabora	Out-Districts
Number of inspectors employed	2	3	4	12
,, ,, houses inspected	15,511	24,153	38,700	6,912
,, ,, ,, where larvæ were found ...	197	197	86	Nil
Number of notices served to remove conditions causing breeding of larvæ	12	138	9	,,
Number of persons fined for having mosquito larvæ on premises	1	Nil	4	,,
Number of notices served to remove insanitary conditions on premises	45	87	77	,,
Number of persons fined for not removing insanitary conditions after notice	Nil	1	9	,,
Number of soda and aerated water factories inspected	4	4	4	,,

METEOROLOGICAL RETURN FOR THE YEAR 1925.

MONTH	Temperature in °C.						Rainfall	
	Shade Maximum	Shade Minimum	Wet Bulb		Dry Bulb		Amount in M.M.	Heaviest rainfall on any one day
			9 a.m.	2 p.m.	9 a.m.	2 p.m.		
January	33.8	14.8	...	...	...	...	118.6	37.7
February	31.5	16.0	...	...	...	...	122.3	62.9
March	31.2	16.0	...	...	...	...	183.2	51.7
April	32.0	16.5	...	...	...	...	8.5	5.5
May	34.8	16.0	...	...	...	...	22.7	18.7
June	34.0	13.0	...	...	...	...	3.4	1.9
July	34.5	11.5	...	...	...	...	...	...
August...	35.0	14.0	...	...	...	...	...	...
September	39.0	16.5	...	...	...	...	0.6	0.6
October	38.5	17.5	...	...	...	...	62.0	49.5
November	35.0	16.0	19.2	23.3	21.1	26.4	589.3	111.5
December	32.5	16.0	19.6	22.9	21.1	25.7	192.9	69.0

VACCINATIONS PERFORMED DURING THE YEAR 1925.

MONTH	Number Vaccinated	Source of Lymph	Successful	Modified	Negative	Not seen again
January	1,602	282,285	1,100	300	100	102
February	199	290,294	...	...	...	...
March	1,305	299,301	595	234	76	410
April	341	307,314	...	...	...	341
May	516	311,319	50	56	94	316
June	275	315,332	25	54	5	191
July	519	340,342	195	56	49	219
August	632	347,348	270	70	60	232
September	5,853	350,353	3,152	651	210	1,840
October	6,187	355,359	2,221	845	662	2,459
November	6,351	360,363	4,129	205	191	1,826
December	3,588	364,365 367,369	1,513	145	374	1,556
TOTAL ...	27,368	...	13,240	2,616	1,821	9,691

64.4% of those vaccinated were re-examined. Of this number 74.8% were successful.

14.8% were modified successful.

10.4% were failures.

EXTRACT FROM THE ANNUAL SANITATION REPORT FOR THE YEAR 1925, FOR THE LINDI DISTRICT.

By Dr. R. Mackay, Sanitation Officer, Lindi.

ADMINISTRATIVE.

The Sanitation Staff comprises a personnel of 39, made up as follows:—

Native Sanitary Inspector	1
Headman	1
Messenger	1
Mosquito brigade	4
Rat-catchers	2
Latrine attendants	9
Cart labourers	6
Casual labourers	15
Total	39

The Sanitation of the Township of Lindi had hitherto been managed in conjunction with the work at the hospital but since the latter part of the year, *i.e.* as from 19th September, there has been a Health Office and undivided attention has thus been given to Sanitation from that time.

PREVENTIVE MEASURES.

With regard to Beri-beri, Scurvy, Rickets and Pellagra no special preventive measures have as yet been taken apart from the supervision of food exposed for sale and introducing as many sanitary improvements as possible. Cases of Scurvy do occur in the gaol at Lindi from time to time and special attention is directed to the quality of the food of prisoners and to the general sanitation of the prison.

For the prevention of insect-borne diseases, endeavours have been made to eliminate the breeding places of flies and mosquitoes. Regarding mosquitoes every effort is made to make Wells, Tanks and all receptacles where water can collect, mosquito-proof; natural hollows are filled in as drainage is in most cases impossible. Steps have been taken to prosecute persons allowing mosquitoes to breed on their premises. The results of these measures have been that the possible breeding places of mosquitoes have been reduced.

Of Relapsing Fever, Trypanosomiasis, Yellow Fever, etc., there are no records for the year. Tsetse fly is found in Lindi District at Ndanda, Masasi and Tunduru, but no cases of Sleeping Sickness have been reported during the year. There is a fair percentage of Stegomyia mosquitoes but no cases of Yellow Fever. With regard to Filariasis no definite records are available but cases of Elephantiasis are met with.

General measures as mentioned have been undertaken to combat the mosquito concerned but these have not yet been sufficiently extensive to cause an appreciable decrease in the number of mosquitoes.

INFECTIOUS AND CONTAGIOUS DISEASES.

No attempt so far has been made to segregate Tubercular cases; there is, at present, no sanatorium in the District. They are, however, treated in an isolated portion of the hospital here.

An endeavour is being made to regulate the building of native huts with regard to position, size and general hygienic requirements of a good building.

As regards general Epidemic Diseases, Influenza has been seen in sporadic cases and minor epidemics throughout the year, the latter chiefly among prisoners undergoing long terms of imprisonment. The question of the sanitation of the gaol has been gone into and factors such as a bad water supply, lack of facilities for personal cleanliness, the improper collection and disposal of excreta, over-crowding in cells, etc., all calculated to have deleterious effect on health have been considered. Steps have been taken to improve the sanitation of the prison with regard to water supply, conservancy, etc.

Endeavours have also been made to avoid over-crowding in the Township, the regulating of the building of houses and huts having been carried out as far as possible.

Preventive measures in the case of Plague have been directed mainly to supervision of buildings intended for grain or foodstuffs stores. Certain desiderata are to be conformed with before permission is granted to build these stores and the building is not to be used for human habitation. One building of this nature has been approved in Lindi within the year.

Furthermore, in the prevention of Plague, rats are being caught daily and the type of flea identified; so far one type only has been found namely Xenopsylla. No cases of Plague have been reported for the year.

The preventive measures against small-pox are confined to vaccination and the examination of newcomers into the Township where possible.

For the prevention of Cholera, Dysentery and Enteric fever improvements have been made in some of the wells, making them impervious to surface contamination; few native houses have satisfactory arrangements for the disposal of excreta; the practice of building pit-latrines has been regulated and measures to eliminate the breeding places of flies have been taken.

With regard to Helminthic Diseases, pools and other places potentially dangerous from the point of view of harbouring the infective forms of the Ankylostome and the Schistosomata are being filled in.

For the prevention of Taeniasis and Trichinosis meat is examined before being exposed for sale.

GENERAL MEASURES.

(a) The general measures taken for the prevention of diseases during the year were directed towards improving the wells which constitute the water-supply of the Township. The only source available yielding sufficient water for the requirements of the community was chosen and improvements on the following lines recommended, namely that the catchment area be fenced in, fitted with a pump, the water to be stored in a concrete tank above the highest level to be supplied, and that the pits and hollows in the neighbourhood of the wells be filled in. For the ultimate supply it was proposed to lead the water to the Township using water kiosks at convenient places.

Regarding the present wells, it was recommended that these be covered with concrete tops, fitted with a pump and provision made to render them safe against surface contamination. A half channel concrete guttering is provided to deal with water lost in pumping; it leads into a soakage-pit. This work is at present being carried out.

With regard to the disposal of excreta the pail system has been in use during the year in the case of Europeans, a few Asiatics and one Native. The major portion of the population use pit-latrines.

Examination of foodstuff exposed for sale has been carried out periodically and any breach of the Health Regulations in ths connection is dealt with.

An endeavour was made to eliminate such nuisances as breeding places for flies, insanitary soakage-pits, cesspits and drains. The building of insanitary houses, etc., has been prohibited where possible

The duties of the Port Health Officer have been carried out in respect of vessels arriving at the port.

(b) So far no measures have been taken to spread the knowledge of hygiene and sanitation. An attempt is always made to point out to the native that bad sanitary conditions mean ill-health but no definite form of propaganda has been introduced.

(c) With regard to future work it is recommended that the sanitation of the township be improved by introducing a proper conservancy system, supervising the sale of food, insisting on the strict observation of the rules and regulations governing sanitation, the notification of Births and Deaths if possible, ascertaining the incidence of such diseases as Ankylostomiasis, Bilharzia, Leprosy, Yaws, Tuberculosis and Venereal Diseases and Propaganda with a view to teaching the native the elements of hygiene and its importance in the prevention of disease.

The Administrative Department are co-operating with the Health Office to obtain figures regarding Births and Deaths.

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IV. PORT HEALTH WORK AND ADMINISTRATION.

The quarantine station for the sea ports of the Tanganyika Territory is at Zanzibar, well organised and equipped. There are fully qualified Sanitation Officers at Dar es Salaam and Tanga, Medical Officers who function as such, at Bukoba, Lindi, Mwanza and Kigoma, Sub-Assistant Surgeons at Bagamoyo, Kilwa, Musoma, Mikindani and Pangani. Shipping is increasing and total numbers of Steamers and Dhows given pratique during the year at the different ports are as follows:—

	Steamers	Dhows
Dar es Salaam	323	766
Tanga	200	697
Lindi	44	147
Mikindani	17	163
Mwanza	51	798
Kilwa	22	279
Kigoma	106	24
Bagamoyo	40	581
Pangani	26	312
Musoma	100	—
Bukoba	52	10
	964	3,614

V. MATERNITY AND CHILD WELFARE.

In the 1924 report mention was made of the proposed opening of Clinics at Dar es Salaam and Tabora. The Health Visitor, Miss Allardes, commenced her activities at Dar es Salaam during November of that year, which consisted of weekly visits to the King's African Rifles and Police Lines where the children and women were inspected and treated for minor ailments. Such as required hospital attention were sent to the Native Hospital. The Government School children were seen daily, excluding Saturdays and Sundays, throughout the year. Treatment of the usual minor conditions at the school dispensary and vaccinations were performed periodically and dental attention arranged for. House visits connected with ante-natal, natal, and post-natal work in the town and in some instances at the outlying villages were paid, as necessity arose. The clinic itself was opened during the first week of June, 1925. It consists of an office, an out-patient room, a lying-in room, a small ward with two beds, and another room which could be used as a ward in emergency. The Tabora Clinic in charge of the Health Visitor, Miss Ryder, began in October, and good progress has been made. Arrangements for the opening of another clinic at Machame in the Moshi district were put in hand and a Sister, Mrs Cartlidge, engaged for the purpose.

From the figures given below it will be seen that considerable headway has been made already: a standard form of return is being prepared in order to secure uniformity.

	Dsm.	Tabora.
Nos. of Parturient Women treated at Hospital	4	—
,, ,, ,, ,, ,, ,, Clinic	16	—
,, ,, New Births visited	9	37
,, ,, Still ,, ,,	—	3
,, ,, Confinements attended by Health Visitor	8	—
,, ,, Homes Visited in Town	1859	40
,, ,, ,, ,, in District	98	1
,, ,, Children treated at Hospital	208	9
,, ,, ,, ,, ,, Clinic	655	292
,, ,, ,, ,, ,, Government and other Schools	2589	454

Vital Statistics.—Although welfare work at Dar es Salaam was begun several months earlier the notification of births has been negligible, whereas at Tabora 17 births and 3 deaths, under one year, were notified during December, the third month after the opening of the clinic. The Medical Officer of Health, Tabora, gave the Infant Mortality Rate for December at 126.

Extension of Clinics and Propaganda.—During 1926 it is hoped that several new clinics will be opened—namely at Kahama and probably also at Mabama in the Tabora Province; at Tanga, Lindi and Mwanza. With time and patience there can be little doubt that a vast amount of invaluable work will be accomplished. I am strongly of the opinion that a special Medical Officer should be detailed, and later if satisfactory, be appointed permanently in charge of Maternity and Child Welfare for inspection, instruction, local organisation and establishment on a sound basis of the different centres as they are created. Inspections of schools could also be undertaken periodically. Amongst other factors, general insanitary conditions and disease, the most potent influences that demand action are the education of the mother, the elimination of indigenous methods of delivery, and interference during and after birth.

Whereas the African mother breast-feeds her child, as a rule, for a full year and sometimes longer, the beneficial results which would otherwise accrue are destroyed in the belief that the colostrum bearing milk is harmful, and that the mothers milk of itself is insufficient nourishment. The result is that from birth extraneous matter in the form of coarse indigestible carbohydrates is forced upon the child, which naturally proves disastrous. It is proposed by active propaganda through the agency of the clinics, the African District Sanitary Inspectors, and other channels, to insist that the child shall not be other than breast-fed during the first year, in the hope that for the early months at all events the infant might escape improper feeding. A circular together with rules for the information of adult African women and men has been distributed to all Administrative and Medical Officers, Missionary Societies, and the Education Department, with the request that every endeavour should be made to encourage application for medical aid. The "Rules" draw attention to the desirability of expectant mothers attending at Hospitals and Welfare Clinics, the harmful results of unskilled interference during and after labour, the vital importance of reporting immediately difficult or complicated cases of labour and any illness of the parturient mother or child, the proper method of ligaturing the cord and the after-care of the child and the hygienic regime that should be observed by the mother during lactation. The "Rules" were translated into Kiswahili through the courtesy of the Director of Education, and into Arabic through the kindness of Mr. MacMillan the District Officer of Utete. The demand has been great and over 6,000 copies were distributed.

An interesting and instructive note by Senior Sub-Assistant Surgeon Mr. Kelkar relating to child welfare propaganda in the Kahama sub-district of Tabora is detailed on pages 112-113 of this report. The communication details the proceedings in a graphic manner. Great credit is due to all concerned.

At my request copies were circulated to all Administrative Officers by the Chief Secretary with the view of holding similar "Baby shows" on fitting occasions in other parts of the Territory.

VI. HOSPITALS AND DISPENSARIES.

Additions and alterations to the hospital accommodation in the Territory are detailed below.

CASES TREATED.

	1922	1923	1924	1925
In-patients ...	13,650	16,780	21,946	27,931
Out-patients ...	103,409	114,695	169,032	244,442
Total	117,059	131,475	190,978	272,373

This figure does not include cases of Yaws and Syphilis treated in the districts by mobile clinics or those attended to at the Maternity and Child Welfare centres.

An excellent Dental X Ray apparatus was installed at the Dental Surgery, Dar es Salaam, and is proving a great boon in conservative work.

NEW BUILDINGS ERECTED AND IMPROVEMENTS AND REPAIRS TO EXISTING MEDICAL BUILDINGS EFFECTED DURING 1925.

The following summary of work has been supplied through the courtesy of the Director of Public Works.

Division and Station	Description	Remarks
Dar es Salaam ...	Public Latrines	One completed
	Improvements to Drains	New latrine and drain improvements constructed Sewa Hadji Hospital
	Sanitary Fittings, European Hospital	Installed
Kilosa	Native Hospital	Asiatic Ward completed. Administrative Block and Boys Quarters in progress
	Quarters for Sub-Assistant Surgeon	Commenced
Tanga	Quarters for Sub-Assistant Surgeon	Built as upper Storey to Dispensary: completed
	Stone-pitching of open drains	Completed
Moshi	Mortuary	Completed
	Public Latrine and Incinerator	Completed
Arusha	Mortuary	In progress
Mbulu	Quarters for Compounder	Completed
Tabora	Two Isolation Camps	Completed
Kigoma	Public Latrines	Completed
	Native Hospital	One Ward and Operating Theatre completed. Latrine and kitchen in progress
	Reconstruction of surface drains	2,580 ft. of drain constructed
Ujiji	Public Latrines and Incinerators	Two latrines and two incinerators completed
	Special Repairs to Hospital	Completed
Dodoma	Indian and Native Hospital	In progress
	Central Lunatic Asylum	Commenced
Mwanza	Public Latrines	2 Completed
	Mortuary	Completed
	Operating Theatre and Stores	In progress
	Extension to Hospital	Two new wards completed

QUININE PROPHYLAXIS.

The arrangement for the sale to the public of quinine tabloids and powder at the Post Offices throughout the Territory were completed during December, and the drug was available for purchase from the first day of January, 1926. Attractive posters in English and Kiswahili, giving dosage, methods of use and prices were distributed. The "Dar es Salaam Times" was notified, and a copy of the Kiswahili poster was reproduced in the local African paper entitled "Mambo Leo", published by the Government Press. Tabloids to the extent of 270,000, powder in 10 grain packets and 1 ounce bottles, amounting to 100 lbs of quinine were placed on sale in the first instance.

REPORT ON THE HEALTH OF THE KING'S AFRICAN RIFLES, TANGANYIKA TERRITORY.

6th Battalion.—Headquarters at Dar es Salaam with Garrisons at Arusha, Mahenge and Songea.

1. British Officers.

	Dar es Salaam		Arusha		Mahenge		Songea	
Total British Officers and N.C.O's Resident	24		4		4		8	
Average Resident	14		3		2		3	
	All Diseases	Malaria and Black-water	All Diseases	Malaria and Black-water	All Diseases	Malaria and Black-water	All Diseases	Malaria and Black-water
Total on sick list	35	15	3	1	3	2	4	2
Total days on sick list	274	85	16	7	16	13	28	9
Average daily number on sick list...	0·75	0·23	0·04	0·019	0·04	0·035	0·07	0·02
Percentage of sick to average number resident	5·35	1·64	1·33	0·33	2·10	1·57	2·44	0·69
Average number of days on sick list for each patient	7·82	5·66	5·33	7	5·33	6·50	7	4·50
Average sick time to each resident...	19·57	6·07	5·33	2·33	8·42	6·84	9·79	3·14
Total number invalided	1	...	1	...	...	...	1	...
Percentage of invalidings to total residents...	4·16	...	25·0	...	...	...	12·50	...
Percentage of invalided to average number resident	7·14	...	33·33	...	...	...	34·96	...
Total deaths	...	...	...	...	...	...	...	...

2. Other Ranks.

	Dar es Salaam	Arusha	Mahenge	Songea
Total strength Native Ranks ...	543	175	115	217
Average ditto	441	165	...	217
Average daily number on sick list ...	15·20	3·16	1·22	12
Percentage of sick to average strength	3·44	1·91	...	5·53
Total number invalided	11	...	...	...
Percentage of invalidings to average strength	2·49	...	...	...
Total deaths	1	...	2	1
Percentage of deaths to average strength	0·23	...	...	0·46
Total admissions	800	126	43	90

2nd Battalion.—Headquarters at Tabora, with Garrisons at Iringa, Mwanza and Tukuyu.

1. British Officers.

	Tabora		Iringa		Mwanza		Tukuyu	
Total British Officers and N.C.O's. Resident	29		8		6		5	
Average Resident	18		3		2		2	
	All Diseases	Malaria and Black-water	All Diseases	Malaria and Black-water	All Diseases	Malaria and Black-water	All Diseases	Malaria and Black-water
Total on sick list	5	3	3	2	4	...	...	2
Total days on sick list	18	13	45	13	19	...	...	18
Average daily number sick	0·04	0·03	0·12	0·03	0·05	...	...	0·05
Percentage of sick to average	0·22	0·16	3·63	0·90	2·50	...	...	2·50
number resident	3·60	4·30	15	6·50	4·75	...	...	9
Average number of days on sick list for each patient	1·00	0·60	13·63	3·93	9·50	...	...	9·00
Average sick time to each resident...								
Total number invalided	...	...	...	...	...	...	...	...
Percentage of invalidings to total residents	...	...	...	...	...	...	...	...
Percentage of invalided to average number resident	...	...	...	...	...	...	...	...
Total deaths	...	...	...	...	...	...	...	...

2. Other Ranks.

	Tabora	Iringa	Mwanza	Tukuyu
Total strength Native Ranks... ...	519	79	195	87
Average ditto	459	79	180	70
Average daily number on sick list ...	22·14	1·4	1·9	1·53
Percentage of sick to average strength	4·79	1·77	1·05	2·18
Total number invalided...	2	...	2	...
Percentage of invalidings to average strength	0·43	...	1·11	...
Total deaths	2	3	3	2
Percentage of deaths to average strength	0·43	3·78	1·66	2·85
Total admissions	405	...	...	...

REPORT ON PRISONS BY STATIONS, 1925.

Name of Prison	1	2	3	4	5	6	7	8	9				10	
	Number of Prisoners in Prison on 31.12.24	Number of Prisoners committed to Prison during 1925	Number of Prisoners in Prison on 31.12.25	Daily average number of Prisoners, 1925	Number admitted to Prison Sick Bay, 1925	Number admitted to Native Hospital, 1925	Daily average on Sick List	Number of deaths of Prisoners in 1925	Cause of Death in each case	Period of Detention in Prison prior to date of death			Prisoners released on Medical grounds	Cause of release in each case
										Y.	M.	D.		
Arusha	84	393	75	86·3	...	69	6·5	2	1. Amoebic Dysentery	...	4	7	Nil	...
									2. Tuberculosis of Lungs	1	2	...		
Bagamoyo	19	223	38	28	14	2	1·7	Nil	...	...	...	...	...	...
Bukoba	112	412	105	115	119	1	3·76	3	1. Dysentery	...	5	10	Nil	...
									2. Pneumonia, General Debility	...	...	4		
									3. Chronic Valvular Disease of Heart	1	8	...		
Dar es Salaam...	197	304	163	201	70	143	5	7	1. Haemorrhage of Brain	...	2	...	1	Phthisis
									2. Dysentery	3	10	...		
									3. Broncho-Pneumonia	3	...	...		
									4. do.	...	5	10		
									5. Epilepsy	...	1	6		
									6. Leprosy and intra-cardiac thrombosis	3	2	...		
									7. Lobar Pneumonia	6	8	...		
Dodoma	120	330	128	127	125	9	9·3	2	1. Diarrhoea	...	2	6	Nil	...
									2. Lobar Pneumonia	...	7	22		
Iringa	40	128	44	33·3	Nil	4	·08	Nil	...	...	...	...	Nil	...
Kahama	20	101	11	13·7	...	2	1·1	Nil	...	...	...	...	Nil	...
Kasanga	?	28		...	...	...	...	...	...	...	...	...	Nil	...
Kigoma...	105	313	84	90·66	32	21	1·07	2	1. Ankylostomiasis	...	9	20	Nil	...
									2. Broncho-Pneumonia	...	5	29		
Kilosa	9	301	58	37·7	...	11	1·3	Nil	...	...	...	...	Nil	...
Kilwa	25	107	16	25	...	1	·2	1	1. Suicide, Cut throat	...	...	...	Nil	...
Kondoa-Irangi ...	33	370	43	52	8	...	9	2	1. Ankylostomiasis	...	5	27	Nil	...
									2. Trypanosomiasis	1	4	7		
Lindi	50	284	45	54	120	31	10	6	1. Heart failure from Inanition	...	9	...	1	Chronic Diarrhoea Inanition
									2. Ulcerative Colitis	...	6	...		
									3. Heart failure from Malaria	1	4	...		
									4. Broncho-Pneumonia	...	6	...		
									5. Debility from tertiary Yaws	1	1	...		
									6. Influenza	1	...	...		
Lushoto	30	99	29	22	Nil	3	6	1	1. Ankylostomiasis	...	2	...	Nil	...
Mahenge	13	93	10	15·27	Nil	Nil	Nil	Nil	...	...	...	...	Nil	...
Mikindani	19	75	18	15	2	1	·22	Nil	...	...	...	...	Nil	...
Morogoro	114	327	108	87	...	125	8	3	1. Mania	...	10	27	Nil	...
									2. Diarrhoea and Debility	...	4	8		
									3. Pulmonary Tuberculosis	...	5	14		

Report on Prisons by Stations, 1925—*continued.*

Name of Prison	1 Number of Prisoners in Prison on 31.12.24	2 Number of Prisoners committed to Prison during 1925	3 Number of Prisoners in Prison on 31.12.25	4 Daily average number of Prisoners, 1925	5 Number admitted to Prison Sick Bay, 1925	6 Number dmitted to Native Hospital, 1925	7 Daily average on Sick List	8 Number of deaths of Prisoners in 1925	9 Cause of Death in each case	9 Period of Detention in Prison prior to date of death Y.	 M.	 D.	10 Prisoners released on Medical grounds	10 Cause of release in each case
Moshi	67	190	29	35	22	Nil	1·75	Nil	...	...	...	...	Nil	...
Musoma	75	466	59	52	...	5	...	1	1. Diarrhoea	...	...	1	Nil	...
Mwanza	234	831	202	175	35	...	21	5	1. Acute delirious mania	...	18	...	Nil	...
									2. Pneumonia	...	3	...		
									3. Phthisis	...	5	...		
									4. Senile Decay	...	9	...		
									5. Colitis	...	8	...		
Namanyere ...	15	78	11	13	1	...	1·8	Nil	...	...	...	...	Nil	...
Pangani	61	205	23	24	1	Nil	3·2	1	1. Malaria S.T.	...	5	9	Nil	...
Shinyanga	6	40	6	10·19	4	...	·05	Nil	...	...	...	...	Nil	...
Singida	...	70	15	15	3	...	·08	Nil	...	...	...	...	Nil	...
Songea	24	112	13	23	3	...	2	1	1. Collapse under anaesthetic while having his leg amputated	...	...	8	Nil	...
Tabora	107	504	209	147	36	...	10·9	7	1. Pneumonia	...	11	21	1	Senile debility and blindness
									2. do.	...	7	9		
									3. do.	...	6	19		
									4. Chronic Meningitis and Epilepsy	...	3	...		
									5. Pneumonia	1	2	10		
									6. Anaemia and Senile Debility	...	9	23		
									7. Pneumonia	...	...	1		
Tanga	132	519	113	125	128	...	7	4	1. Pulmonary Tuberculosis	7	...	...	Nil	...
									2. Pericarditis	...	9	...		
									3. Enteritis ex Leprosy	4	6	...		
									4. Acute Mania	...	...	3		
Tukuyu...	127	216	107	120	158	...	11·2	11	1. Peritonitis	...	4	...	Nil	...
									2. Influenza	...	5	...		
									3. Influenza	...	5	...		
									4. Malaria	2	7	...		
									5. Influenza	...	5	...		
									6. Influenza	...	1	...		
									7. Influenza	...	...	14		
									8. Influenza	...	1	14		
									9. Influenza	...	3	...		
									10. Heart Failure	...	...	14		
									11. Cerebral Malaria	1	3	...		
Ujiji	...	...	...	...	...	...	...	...	...	...	...	...	Nil	...
Utete	19	115	19	18	9	...	1·14	Nil	...	...	...	...	Nil	...

Report on Prisons by Stations, 1925—*continued.*

Name of Prison	11 System of confinement Association Cells (A.C.) or Single Cells (S.C.)	12 Cubic space available at night per prisoner taking average number	13 Floor space in square feet per prisoner taking average number of prisoners	14 Labour on which prisoners are employed and hours of work	15 Sanitary condition of Prison	16 Are cell floors cemented?	17 Prevailing diseases	18 Rules as to diet and hours of meals, what variety is provided, green food? meat?
		Cubic feet	Sq. feet					
Arusha	A.C.	320	...	Wood cutting, road mending, sanitary work in gaol, water carrying. Hours of work: 6.30 to 4 p.m., 6.30 to 12 p.m. Saturdays. Sunday no work, one hour for midday meal.	Satisfactory	Yes	Bronchial catarrh, influenza, diarrhoea	According to Prison Ordinance.
Bagamoyo	A.C.	535·7	45·5	Road making, wood cutting Sanitary work. 6.30 a.m. to 12 noon. 1 p.m. to 4 p.m.	Good	Yes	Malaria, ulcers, headaches, etc.	12 noon. 4.30 p.m. mealie meal, mtama, beans, muhogo, ghee, salt, sometimes green vegetables.
Bukoba...	2 Male cells, 2 Female cells, A.C., 6 S.C., 1 Hospital, 1 remand cell	380	37	6 a.m. to noon, 1 p.m. to 4 p.m. Wood cutting, stone quarrying, general prison work.	Very good	Yes	Malaria	Prisoners fed at 6 a.m. noon and 6 p.m. Diet includes green food and meat as per Prison Ordinance. Prisoners file past kitchen and receive food on enamel bowls.
Dar es Salaam	2 large A.C., 21 small A.C. No single cells	500	175	Tailoring, mat making, carpentry, masonry, rope making, assistants to smiths, stone breaking, pumping, general labour. Hours 6-12 noon. 1-4·30 p.m.	Good	Yes	Malaria, bronchial catarrh, lung troubles	12 noon to 1 p.m. 4.30 p.m. Good variety of food stuffs. *Scale A*: Long term prisoners and civil prisoners meat with bone 6 oz. maize 18 oz., beans 6 oz., potatoes 8 oz., ghee ½ oz., salt ¼ oz., lemons 2 a week *Scale B*: Short term and remand prisoners maize 2 lbs., beans 5 ozs., ghee ½ oz., salt ¼ oz., lemons 2 a week.
Dodoma	A.C.	360	36	Brick-making, building, lime burning, station and town improvements. Sanitation, cutting and collecting wood, water carrying. Hours: 6.30 a.m. to 12 noon, 1 to 4 p.m.	Satisfactory	Yes	Bronchitis, Malaria, S.T., minor injuries, diarrhoea, constipation, colic.	Govt. Notice No. 171 of 1924 closely adhered to. Two meals, 12 noon and 5.30 p.m. respectively.
Iringa	S.C.	784	60	Cleaning prison latrines, carrying wood and water, road repairing. 6 a.m. to 12 noon 1 p.m. to 4·30 p.m.	Good	Yes	Nil	Rationed as per scale laid down in Govt. Notice No. 171 of 1924. Hours of meals 6 a.m. 12 noon and 4 p.m.

Report on Prisons by Stations, 1925—*continued.*

Name of Prison	11 System of confinement Association Cells (A.C.) of Single Cells (S.C.)	12 Cubic space available at night per prisoner taking average number	13 Floor space in square feet per prisoner taking average number of prisoners	14 Labour on which prisoners are employed and hours of work	15 Sanitary condition of Prison	16 Are cell floors cemented?	17 Prevailing diseases	18 Rules as to diet and hours of meals, what variety is provided, green food? meat?
		Cubic feet	Sq. feet					
Kahama … …	Associated. Women and juveniles are confined in separate cells	820	63	Supplying prison with wood and water, repairing the gaol, cleaning roads and sanitary labour generally.	Good	Yes	Malaria, bronchitis, diarrhoea	Food is provided according to the dietary scale laid down for all prisoners.
Kasanga … …	…	…	…	Wood and water duties, work on roads and bridges, labour on Government buildings, grass cutting and bush cleaning. Not heavy work.	…	…	…	Hours of meals: 12 noon and 5 p.m. Muhogo and mealie meal 2 lbs., beans 5 ozs., salt ¼ oz. daily. Lemons and sweet potatoes when obtainable, vegetables unobtainable. Recommend ½ lb. meat or fish twice a week covered by reduction of meal supplied.
Kigoma … …	A.C.	460	51	Wood cutting, road making, sanitary work, township improvements, grass cutting, tree trimming, improvement of station. Hours: 5.30 a.m. to noon and 1 to 4 p.m.	Good	Yes	Chicken-pox, ankylostomiasis, bronchitis, gonorrhoea, syphilis	Three meals, 6 a.m., noon, 4.30 p.m. Diet changed thrice weekly. A variety of food is provided as follows:—mealie meal, manioc flour, beans, uncooked manioc, sweet potatoes, meat, salt, lemon juice, native spinach. Long term prisoners ½ lb. meat twice a week.
Kilosa … … …	A.C.	202·9	…	Hours: 6 to 12 a.m. and 1 to 4.30 p.m. Work: building new Police huts, local sanitary work at gaol and Boma and genéral Government work.	Fair	Yes, but in bad repair	Ulcers and Malaria, but not bad	Hours: 8 a.m. 12 noon to 1 p.m. and 6 p.m. Meat is given to all long term prisoners. Germinated beans are given to all prisoners as it is not easy to obtain green food here.
Kilwa … … …	A.C.	643	75	Prison gardening, station and town improvement, wood cutting, lime burning, and roads. Hours: 6 a.m. to 12 noon and 2 p.m. to 4.30 p.m.	Good	Yes	Malaria, bronchitis and minor injuries	Ordinance of 1921, 3 meals a day, regularly. Green food and fish provided, meat not available at Kilwa.
Kondoa-Irangi…	A.C.	710	47	…	Very Good	Yes	Bronchitis, malaria, diarrhoea	Food is of good quality and sufficient quantity.

REPORT ON PRISONS BY STATIONS, 1925—*continued.*

Name of Prison	11 System of confinement Association Cells (A.C.) of Single Cells (S.C.)	12 Cubic space available at night per prisoner taking average number	13 Floor space in square feet per prisoner taking average number of prisoners	14 Labour on which prisoners are employed and hours of work	15 Sanitary condition of Prison	16 Are cell floors cemented ?	17 Prevailing diseases	18 Rules as to diet and hours of meals, what variety is provided, green food ? meat ?
		Cubic feet	Sq. feet					
Lindi	A.C.	500	54	Wood cutting, road making, sanitation, building, masonry. 6.30 a.m. to 12 noon 1 p.m. to 4 p.m.	Satisfactory	Yes	Yaws, malaria, debility, bronchitis, conjunctivitis	6 a.m. porridge ; midday, beans, meal or mtama, ghee, salt, limes squeezed in water or mangoes if available. Evening 5 p.m. : Similar to midday varied as to grain, fish if available twice a week, green vegetables, pumpkins, sweet potatoes when possible.
Lushoto	A.C.	765	63	Government roads, Prison garden, building. Hours : 6.30 to 12 noon 1 to 3.30 p.m.	Good	Yes	Bronchitis	12 noon and 5.30 p.m. Vegetables three times a week. Meat when serving sentences of over six months duration.
Mahenge	A.C.	462	104	Cultivating prison farms, cutting and carrying firewood, drawing water, carrying lime as required, cleaning up Police lines daily.	Satisfactory, but privy should be improved when cement is available	...	Minor injuries, stomach and bowel troubles and colds	As laid down in the diet scale of the prison. Meat or fish are always available and bananas, pumpkins, and European vegetables are also supplied when necessary.
Mikindani	A.C., S.C.	206	49	Fuel cutting, cleaning compounds, road making and repairing.	Good	Yes	Injuries, constipation, bronchitis, headache, abscess, ulcers, diarrhoe a	½ lb. of mtama, ½ lb. of beans, ¼ oz. salt twice a day : 12 noon 5 p.m. according to the Prison Dietary Scale.
Morogoro	14 A.C. 5 S.C.	562	49	Wood cutting, brick making, lime burning, cultivation of prison shamba. 7 to 12 noon. 1 to 4.30 p.m. Saturdays until 12 noon. Sundays nil.	Very satisfactory	Yes	Constipation, general injuries, malaria.	According to Official Gazette No. 15 of 1921. Meal times 12 to 1 p.m., 4.30 to 5.30 p.m. Green food, sweet potatoes, mohogo, beans, lemons, limes, meat supplied to long term prisoners.
Moshi	A.C.	200	54	Hours : 6.30 to 12 noon. 1 p.m. to 4 p.m. Prison industries making bricks, building huts, carpentry, lime burning, fuel cutting, sanitation.	Very good	Yes	Malaria, small-pox, local injuries, helminthic diseases	Maize, beans, mealie meal sweet potatoes, meat, ghee, lemons, salt. Hours of meals :—Noon and 4.30 p.m.
Musoma	A.C.	300	26	6.30 a.m. to 12 noon. 1 p.m. to 4 p.m.	Good	Yes	Nil	Mawele, beans, sweet potatoes, lemons, meat three times a week.

REPORT ON PRISONS BY STATIONS, 1925—*continued.*

Name of Prison	11 System of confinement Association Cells (A.C.) of Single Cells (S.C.)	12 Cubic space available at night per prisoner taking average number	13 Floor space in square feet per prisoner taking average number of prisoners	14 Labour on which prisoners are employed and hours of work	15 Sanitary condition of Prison	16 Are cell floors cemented ?	17 Prevailing diseases	18 Rules as to diet and hours of meals, what variety is provided, green food ? meat ?
		Cubic feet	Sq. feet					
Mwanza	A.C.	...	24	6.30 a.m. to 12 noon. 1 p.m. to 4 p.m.	Good	Yes	Injuries, diarrhoea, malaria	Meal hours 6 a.m., noon, and 5.30 p.m. ½ lb. meat, ½ lb. beans, 1 lb. meat in addition varied with native foods and potatoes.
Namanyere ...	A.C.	483	48	Brick making, gardening, building, water carrying, wood cutting. 9½ hours a day. 5½ Saturdays. Nil Sundays.	Good	Yes	Local injuries, bronchitis, malaria	In accordance with Dietary Table authorised under Govt. Notice No. 118 of 1921.
Pangani	A.C.	400	47	Rigorous : Lime burning, wood cutting and station improvement. Simple : Mat weaving, rope making, jail cleaning and other light work. (9 hours a day).	Good	Yes	Minor ulcers and wounds caused while at work	Early morning, midday, and evening meals. As much variety as posssible consistent with local supply and Dietary scales.
Shinyanga... ...	A.C.	630	26	Cleaning township area, supplying water and firewood. Hours : 7 a.m. to 12 noon, 2 to 4 p.m.	Good	Yes	Bronchitis and local injuries	Meal hours :—12 noon and 5 p.m. Mtama porridge and ½ oz. ghee, meat ¼ Kg. once a week.
Singida...	A.C.	500	30	Water carrying, wood carrying. General work in Prison and Boma.	Good	Yes	Nil	Two meals a day. Flour and vegetables, etc.
Songea	A.C.	400	46	Unskilled road making, building, station improvement, general labour. 6.30 to 12 noon, 1 to 4.30 p.m.	Good, but the building is in bad repair and the roof leaks badly.	No. Floors are of wood	Rheumatism and bronchitis	Scale as laid down in Govt. Notice 171 of 1924. Meals at 6 a.m., 12 noon, and 6 p.m. Dried fish issued once a week in lieu of fresh meat. Muhogo, potatoes, beans, lemons, germinated beans.
Tabora	A.C.	260	125	Carpentry, tailoring, rope making. (Outside) Brick making, building, wood chopping, water carrying. Hours : 6.30 a.m. to 12 noon, 1 p.m. to 4 p.m.	Good	Yes.	Pneumonia more prevalent than usual	6 a.m., 12 noon, 6. p.m. Maize, muhogo and beans. Long term prisoners have 6 oz. meat, ½ oz. ghee, and ¼ oz. salt daily, also 8 oz. green vegetables four days per week Short term prisoners receive 8 oz. green vegetables four days per week also ½ oz. ghee and ¼ oz. salt daily.

REPORT ON PRISONS BY STATIONS, 1925—*continued.*

Name of Prison	11 System of confinement Association Cells (A.C.) or Single Cells (S.C.)	12 Cubic space available at night per prisoner taking average number	13 Floor space in square feet per prisoner taking average number of prisoners	14 Labour on which prisoners are employed and hours of work	15 Sanitary condition of Prison	16 Are cell floors cemented?	17 Prevailing diseases	18 Rules as to diet and hours of meals, what variety is provided, green food? meat?
		Cubic feet	Sq. feet					
Tanga	16 A.C., 6 small cells.	343	44	Hours: 6.30 to 12 noon and 1 p.m. to 4 p.m. Soap making, tailoring, lime burning, wood cutting, sanitary work, building and town improvement.	Unsatisfactory, see last remarks of report.	Yes.	Cellulitis, myalgia, malaria, diarrhoea	Three meals a day 6 a.m., 12 noon, 5·30 p.m. *Long Term:*— Natives get lemons 4 times a a week and meat 6 oz. Europeans vegetables and lemons, 12 oz. meat 4 times a week. All others are fed as per Prison Ordinance scale 191 section 61.
Tukuyu	5 A.C., 4 S.C.	1350	58	Hours 6.30-12 noon. 1 p.m. to 4 p.m. Town improvement, road making, forestry, gardening.	Very satisfactory	No.	Influenza, P.U.O.	6 a.m., 12 noon, 5.30 p.m. Rice, maize, beans, ghee, salt, meat thrice weekly for long term prisoners.
Ujiji	...	...	...	...	...	...	Nil	Nil.
Utete	A.C.	435	54	On improvement works, also to assist in repairs to Police and Prisons buildings. Hours: 7 a.m. to 12 noon, 1 p.m. to 4.30 p.m.	Good.	No.	Malaria, bronchitis, constipation, dysentery and headache	Prisoners are fed on both green food and meat according to the Prison Dietary Scale. Meal hours: 6 to 6.30 a.m. 12 noon and 5 p.m.

REPORT ON PRISONS BY STATIONS, 1925—*continued.*

Name of Prison	19. Vaccinations						20. Infective Diseases				21. Insects and other Pests in Prison					
	Number during 1925						Number of Cases of									
	Vaccinated	Successful	Modified	Failures	Number excused Vaccination on account of previous smallpox or successful recent vaccination	Number not protected against smallpox	Chicken-pox	Dysentery	Influenza	Other	Lice	Bugs	Fleas	Ornithodorus Moubata	Rats	Mice
Arusha...	78	60	...	18	...	...	13	3	15	1	...	...	...	...	...	...
Bagamoyo	34	21	8	5	...	...	...	...	...	...	...	...	...	...	...	...
Bukoba...	Nil	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dar es Salaam...	Nil	...	...	...	...	...	2	...	...	3	...	...	...	...	Yes	Yes
Dodoma	126	38	12	76	...	...	23	1	...	...	...	...	...	...	...	...
Iringa	128	56	48	24	...	...	...	...	...	...	...	...	...	...	...	...
Kahama	Nil	...	...	...	...	...	...	...	...	2 Mumps	...	...	...	...	...	...
Kasanga	*	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kigoma	99	81	14	4	...	...	12	...	...	...	Yes	Yes	Yes	...	...	...
Kilosa	80	52	15	13	...	...	...	...	...	...	...	Yes	...	...	...	...
Kilwa	Nil	...	...	...	132	...	...	...	...	...	...	...	...	...	...	...
Kondoa-Irangi	110	52	13	45	...	...	...	...	...	...	...	...	...	...	...	...
Lindi	†	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lushoto	‡	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mahenge	Nil	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mikindani	1	...	...	1	...	...	...	...	1	1	...	Yes	...	...	...	...
Morogoro	36	25	7	4	...	...	...	11	...	...	...	...	Very few.	...	...	...
Moshi	45	...	...	...	...	...	5	...	...	...	...	Yes	...	...	...	...
Musoma	Nil	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Mwanza	15	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Namanyere ...	21	1	...	20	13	...	...	...	...	...	...	...	...	...	...	...
Pangani	Nil	...	...	...	...	...	...	...	...	...	...	...	...	...	Yes	...
Shinyanga	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Singida...	12	...	12	...	58	...	...	...	...	...	...	...	...	...	Yes	...
Songea	Nil	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tabora	205	77	75	53	335	...	...	3	...	36	...	...	...	...	...	...
Tanga	35	11	...	24	...	...	12	...	...	...	...	...	...	...	Yes	...
Tukuyu...	98	29	59	10	...	...	...	...	7	...	...	...	Yes	...	Yes	...
Ujiji...	Nil	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Utete	Nil	...	...	...	...	...	...	...	...	...	...	...	...	...	Yes	...

*New prisoners are being Vaccinated.
†All prisoners are Vaccinated if not recently done and if not previously had smallpox.
‡All priscners.

REPORT ON PRISONS BY STATIONS, 1925—*continued.*

Name of Prison	22 Suggestions by the Medical Officer in charge as to improvements required and date when made.				23 Action taken by Prison Authorities as a result of 22:—			
	(a) Accommodation and Ventilation	(b) Diet	(c) Sanitation	(d) Other Matters	(a)	(b)	(c)	(d)
Arusha...	Increased accommodation has been suggested to deal with any sudden influx of prisoners.	Nil	Suggested that sufficient number of feeding bowls be provided for each prisoner to have his own bowl.	...	Carried out.	...	Matter referred to Headquarters and 150 bowls are en route.	...
Bagamoyo	...	...	...	...	...	...	...	...
Bukoba...	...	...	...	...	...	...	...	...
Dar es Salaam...	Roofing of jail hospital and cells. Stricter separation of lepers.	Stricter compliance with Diet Scales.	Two open drains to be covered.	Requisitioned more blankets and mattresses for sick prisoners Ordered stricter compliance with rules for prisoners in chains and solitary confinement.	Carried out.	Carried out.	Carried out.	Carried out.
Dodoma	Fourteen cells have been provided with increased ventilation by the construction of one or more windows per cell.	...	New latrines have been provided for both male and female prisoners and the old latrines have been removed, new wash houses have been constructed for both male and female prisoners. Improvements have been effected in the kitchen and a large concrete table erected for distribution of food. A large banda has been built to protect prisoners against the heat in exercise yard. The use of whitewash in the interior of prison yard has been superseded by at first a cement wash and subsequently a yellow ochre wash.		...	...	...	...
Iringa	...	...	...	...	...	...	...	...
Kahama	Nothing to suggest. Everything in order.	...	...	...	...	...	...	...

REPORT ON PRISONS BY STATIONS, 1925—*continued*.

Name of Prison	22 Suggestions by the Medical Officer in charge as to improvements required and date when made.				23 Action taken by Prison Authorities as a result of 22 :—			
	(a) Accommodation and Ventilation	(b) Diet	(c) Sanitation	(d) Other Matters	(a)	(b)	(c)	(d)
Kasanga	Ample.	...	Provision is made for female prisoners. Bathing and washing done on Sunday, soap being provided.	...	...	...	...	...
Kigoma	...	...	A weekly flushing of latrines with weak disinfectant, cleansing of buckets with disinfectants, cleansing of cooking utensils immediately meal is served.	...	...	...	Action in each case taken.	...
Kilosa	No suggestion as a new building is to be erected in the near future.	...	...	...	...	...	...	...
Kilwa	Nil	...	...	...	...	...	...	...
Kondoa Irangi ...	...	...	...	...	...	...	...	...
Lindi	...	Fresh fish in lieu of dried, green vegetables.	Water supply. Renovation of latrine floors.	Coconut mattress for sleeping mats.	...	Apparently unobtainable.	In hands of P.W.D. Done.	Indented for but not yet received.
Lushoto	Drains to be cemented.	...	Provision of lids for drinking water drums.	...	Carried out satisfactorily.	...	Done	...
Mahenge	Nil	...	...	...	...	...	...	...
Mikindani	Nil	...	...	...	...	...	...	...
Morogoro	...	Germination of peas and beans.	Further augmented supply of buckets and disinfectant.	Extra blankets where necessary. Use of cane in place of 'kiboko'.	...	Carried out.	Done	Done
Moshi...	...	...	...	...	...	...	...	...
Musoma	Rat proof store. Two more wards Prison hospital. Solitary confinement.	...	Supply of disinfectant in large quantity. Drums and buckets.	...	...	...	...	...

REPORT ON PRISONS BY STATIONS, 1925—*continued.*

Name of Prison	22 Suggestions by the Medical Officer in charge as to improvements required and date when made.				23 Action taken by Prison Authorities as a result of 22:—			
	(a) Accommodation and Ventilation	(b) Diet	(c) Sanitation	(d) Other Matters	(a)	(b)	(c)	(d)
Mwanza	...	...	...	...	...	...	...	...
Namanyere ...	...	...	...	...	...	...	...	...
Pangani	...	...	Metal lined bins for food suggested, but not yet fitted.	...	...	...	Bath suggested and fitted in December.	...
Shinyanga	...	...	Disinfectant sprinkled twice a week on floors.	...	...	...	...	...
Singida...	...	...	...	...	...	...	...	...
Songea	As a new prison building has been authorised there are no suggestions concerning present building.		...	...	...	...	...	...
Tabora	A. Female prisoners should be transferred from this prison B. Juvenile prisoners should be given separate accommodation. C. European cell should have a ceiling of wood and a large window put in.	Indian prisoners should be given ½ oz. tea, and 2 oz. of sugar daily Also supplied with a mosquito net.	...	...	Three female lunatics were transferred to Lutindi.	Done	...	...
Tanga	Re-roofing of the old portion of prison.	...	...	...	Suggestion submitted to proper authority.	...	...	...
Tukuyu	...	...	Deep pit type latrines be abolished and pan system substituted.	...	...	...	Above suggestions being carried out this year.	...
Ujiji	...	...	...	...	...	...	...	...
Utete	...	...	...	...	...	...	...	...

REPORT ON PRISONS BY STATIONS, 1925—*continued.*

Name of Prison	24 What sanitary arrangements are there in the cells for use at night?	25 Is drinking water provided for use at night?	26 Is there a weight register and is it kept up to date?	27 What number of blankets is provided for each prisoner?	28 Is the clothing sufficient?	29 Further remarks and suggestions
Arusha	Sanitary buckets in each cell for urination. Ordinary day latrine within easy reach.	Yes	Yes	One. Two in cold weather when available.	Yes	Sanitary buckets to be emptied frequently. There is ample water supply for sanitary purposes. There is a cement bath in prison. All prisoners bath daily. The cells are clean and free from nuisance.
Bagamoyo	Latrine buckets for each cell.	Yes	Yes, only for long term prisoners	One blanket and one mat	Yes	One bath room is necessary for prison
Bukoba	Night pans provided.	Yes	Yes	One	Yes	The ventilation might be improved.
Dar es Salaam ...	Latrine buckets in cells and wards.	Yes	Yes	One blanket, one mat. An extra blanket may be provided in cold weather	Yes	...
Dodoma	One urine drum. One latrine pan.	Yes	Yes	One blanket, one coconut mat. One hide, one suit cotton uniform (short term) two suits (long term).	Yes	...
Iringa	Buckets placed in each at night and removed in the morning.	Yes	Yes	One, and in certain cases two.	Yes	The condition of the prison is good, and the health of the prisoners during the year has been very satisfactory. There have been no deaths. The diseases from which most of the prisoners suffered were as follows: Bronchial catarrh, bronchitis, conjunctivitis, diarrhoea, and general injuries.
Kahama	Ample for purpose of relieving nature.	Yes	No weight register is kept.	One	Yes	Nil
Kasanga	...	...	...	...	...	...
Kigoma	Sufficient buckets in each cell.	Yes	Yes	One	Yes	...
Kilosa	Yes. Latrine pans each cell.	Yes	Yes, for long term prisoners.	One	Yes	Nil
Kilwa	There are all sanitary arrangements in the cells for use at night.	Yes	Yes	One blanket and one sleeping mat.	Yes	Nil
Kondoa-Irangi ...	Latrine pans in cells at night.	Yes	Yes	...	...	Nil

Report on Prisons by Stations, 1925—*continued.*

Name of Prison	24 What sanitary arrangements are there in the cells for use at night?	25 Is drinking water provided for use at night?	26 Is there a weight register and is it kept up to date?	27 What number of blankets is provided for each prisoner?	28 Is the clothing sufficient?	29 Further remarks and suggestions
Lindi	Buckets	Yes	Yes	One. In cold weather two. Dried coconut-palm mat. A proper mattress should provided.		Throughout the year prison sick were treated at the Prison Dispensary adjacent to the prison. Only the very sick prisoners were admitted to Native Hospital for treatment. Those unfit for duty were detained in Gaol Hospital which is capable of admitting 10 prisoners. Throughout the year six prisoners died. These were without exception long term prisoners. The mental effect of a long sentence on a prisoner and the lack of proper food in Lindi go far to bring about this result. It has been suggested therefore that prisoners sentenced to 12 months and over be transferred to another prison where they may obtain green vegetahles and meat rations. This probably would prevent so frequent deaths occurring among this class of prisoners.
Lushoto	Each cell provided with pan, removed and disinfected every morning.	No	Yes	Two	Yes	Nil
Mahenge	Every cell is provided with a covered pail.	Yes	Yes	Yes	Yes	None
Mikindani	Buckets kept.	Yes	No	One blanket.	Yes. Two suits provided.	...
Morogoro	Sanitary buckets in each cell.	Yes	Yes	One, if necessary two.	Yes	Exceedingly well-run prison. Failing new building a new roof is required.
Moshi	Urine buckets with tin covers in each cell.	Yes	Yes	One	Yes	Medical Officer suggested six beds and sick ward to be arranged for the accommodation of convicts not requiring hospital treatment. This was done. When the number of prisoners was 65 and 20 awaiting trial, Medical Officer suggested better ventilation and increased accommodation. Plans for extension of gaol were sent to Commissioner of Prisons. Ventilation was increased by removing galvanised iron ceiling and substituting barbed wire and increasing ventilation below the doors. Bugs were also to a great extent diminished by removal of the ceiling. A new cement bath and new incinerator were constructed.
Musoma	Two drums in each cell.	Yes	No register.	One	Yes	...

Report on Prisons by Stations, 1925—*continued.*

Name of Prison	24	25	26	27	28	29
	What sanitary arrangements are there in the cells for use at night?	Is drinking water provided for use at night	Is there a weight register and is it kept up to date?	What number of blankets is provided for each prisoner?	Is the clothing sufficient?	Further remarks and suggestions
Mwanza	Sanitary buckets supplied	Yes	Yes	One	Yes	Store to be made rat-proof. Another site for European latrine.
Namanyere ...	Sanitary buckets in each cell.	Yes	Yes	One	Yes	Nil
Pangani	Night soil tubs for urine, etc.	Yes	Yes	One and a mat for sleeping.	...	Nil
Shinyanga	...	Yes	Not kept.	One	...	Nil
Singida	Outside latrines only.	Yes	No	Two	Yes	...
Songea	Latrine buckets and lids for each cell	Yes	Yes	Two	Yes	Merely that the building is cold, and inadequate, and that a new prison is obviously essential.
Tabora	One latrine pan each cell.	Yes	Yes	One blanket and one sleeping mat.	Yes, except in the cold weather.	Sick prisoners in Hospital be supplied with 3 blankets each. Each prisoner should be supplied with two blankets during the rains and in the months of July and August.
Tanga	One urine bucket and one sanitary pan.	Yes	Yes	One blanket and mat. Aged patients provided with two blankets,	Yes	To instal a new dry system of latrines and excreta incinerated. New system of drainage. There is a shortage of yard space. Separate accommodation for women prisoners. Action is being taken and defects will be rectified shortly.
Tukuyu	Lidded sanitary buckets	Yes	Yes	Two	Yes	...
Ujiji	...	...	...	...	...	...
Utete	Latrine pails are placed at 6 p.m.	Yes	Yes	One blanket and one mat.	Yes	Prison itself, though clean, is in a dilapidated condition; a new building is suggested

REPORT ON THE HEALTH OF THE POLICE.

STATION	Total strength	Average strength	Average daily number on sick list	Percentage of sick to average strength	Number invalided	Percentage of invalidings to average strength	Number of deaths	Percentage of deaths to average strength	Total admissions to Hospital
Arusha...	78	76	0·87	1·14	...	...	...	...	37
Bagamoyo	41	38	1·3	3·42	...	...	...	...	66
Bukoba...	75	73	2·1	2·89	...	...	...	...	178
Dar es Salaam ...	132	130	7	5·33	3	5·38	...	...	358
Dodoma	105	98	4·13	4·21	1	1·02	...	...	30
Iringa	69	65	·6	·92	...	...	...	...	30
Kahama	22	22	·02	·90	...	...	...	...	7
Kasanga	18	18	...	...	...	...	...	...	...
Kasulo	13	13	...	...	...	...	...	...	...
Kibata	12	12	0·23	1·91	...	...	...	...	...
Kigoma...	106	103	1·24	1·21	2	1·94	1	0·97	31
Kilosa	32	32	1·2	3·60	...	...	...	...	2
Kilwa	70	69	·8	1·16	1	1·3	...	...	27
Kondoa-Irangi... ...	36	35	0·02	0·5	...	...	...	...	8
Lindi	172	170	8	4·70	6	3·50	2	1·10	...
Lushoto	50	46	5	1·86	...	...	...	...	...
Mafia	27	24	...	...	...	...	...	...	1
Mahenge	50	41	·31	·74	...	...	...	...	4
Manyoni	17	17	·02	·12	...	...	...	...	2
Mbulu	20	20	0·18	·90	...	...	...	...	10
Mikindani	27	24	1·2	5·00	...	...	...	...	75
Mkalama	19	17	...	...	...	...	...	...	...
Morogoro	93	78	2·7	3·46	...	...	...	...	33
Morogoro Depot ...	566	190	19	10·00	14	7·30	1	0·5	168
Moshi	54	53	1·25	1·33	...	...	...	...	11
Musoma	37	30	3·5	10·16	...	...	...	...	...
Mwanza	122	116	1·1	·94	4	3·44	...	...	...
Namanyere	38	31	2·69	6·40	1	3·22	...	...	...
Pangani	33	20	2·0	10·0	1	5·0	...	...	12
Shinyanga...	25	22	·3	1·35	...	...	...	...	11
Singida...	16	16	7	43·75	...	...	...	...	7
Songea	50	45	2	4·33	...	...	...	...	21
Tabora	136	75	4·26	5·67	1	1·33	...	...	127
Tanga	70	70	1·46	2·07	...	...	1	1·41	67
Tukuyu	103	93	3·50	3·76	...	...	...	...	...
Tunduru	20	19	·6	3·15	...	...	...	...	30
Ujiji	57	55	·94	1·70	...	...	1	1·81	...
Utete	55	55	1·32	2·40	...	...	...	...	33

APPENDIX I.

ANNUAL REPORT OF THE SUPERINTENDENT, LUTINDI LUNATIC ASYLUM.

STAFF.

European: 2. Matron and Superintendent.

Native: Male and female attendants, cooks, messengers, etc.

NUMBER OF PATIENTS.

	Males	Females	Total.
In residence on 1st January, 1925	52	35	87
Admitted during the year	17	4	21
Discharged ,, ,, ,, ...	12	4	16
Died ,, ,, ,, ...	14	3	17
Remaining on 31st December, 1925	43	32	75
Daily average in residence	44	34	78

	Males	Females	Total
Average stay of those discharged	1 yr. 9 mths.	5 yrs. 9 mths.	2 yrs. 9 mths.
,, ,, ,, ,, who died	2 ,, 5 ,,	2 ,, 11 ,,	2 ,, 6 ,,
,, ,, ,, ,, remaining	5 ,, 11 ,,	8 ,, 3 ,,	6 ,, 11 ,,

ADMISSIONS.

The total during the year was twenty-one.

The majority were in poor physical condition when admitted.

Their mental condition was classified as follows:—

2 Suspected G. P. I.
7 Suffered from Mania.
7 Depressive Insanity with Delusions.
4 Feebleness of mind.
1 Imbecility with Epilepsy.

One female was pregnant when admitted.

Two males were re-admissions to this Asylum, both suffered from Mania.

DISCHARGES.

The 16 patients discharged during the year were classified as follows: —

2 Males were discharged improved.
4 Females were discharged improved.
1 Male was discharged on transfer to Tanga Hospital.

The remaining 9 were discharged as recovered. As in former years, males suffering from Mania provided the bulk of the recoveries.

DEATHS.

14 Males and 3 Females died during the year.

The principal causes, so far as could be ascertained in each case, was as follows:—

3 Exhaustion following prolonged excitement and restlessness.
2 Senile decay.
2 Paralysis.
2 Pyrexia Uncertain Origin.
3 Intestinal Complications.
1 Heart failure.
1 Apoplexy.
1 Epilepsy.
1 Phthisis.
1 Pneumonia.

MAINTENANCE.

Estimated average monthly expenditure on each patient in residence throughout the year:—

	Shs
In food and tobacco	5.49
In wages of employees	4.00
In clothing and blankets	.77
In sundry replacements	.11
In lighting and cleaning materials	.13
Cost per head	10.50

FARM PRODUCE.

Crops grown in Asylum grounds during the year:—

	Shs.
Beans 1977 lbs. valued at	250.04
Sweet potatoes 8577 lbs. valued at	353.08
Muhogo 1038 lbs. valued at	73.26
Vegetables, 414 lbs. valued at	18.38
Tobacco 172 lbs. valued at	92.30
Fruit	48.00
Total value	835.06

The above were taken on Ration Ledger charge.

The Asylum coffee crop realized Shs. 538/20, which was paid in to Treasury, Tanga.

The sum of Shs. 43/-, realized from sales of ox hides and medicines to sundry natives, was also paid in to Treasury during the year.

Based upon average number resident (78) the value of Farm Produce is Shs. 17/60, per head, during the year.

EXPENDITURE.

From 1st January to 31st December, 1925.

	Shs.
January—to maintenance of 83 lunatics	1025.85
February ,, ,, ,, 82 ,,	697.94
March ,, ,, ,, 81 ,,	589.72
April ,, ,, ,, 84 ,,	486.09
May ,, ,, ,, 82 ,,	606.45
June ,, ,, ,, 77 ,,	789.35
July ,, ,, ,, 76 ,,	2038.47
August ,, ,, ,, 77 ,,	942.18
September ,, ,, 76 ,,	857.37
October ,, ,, ,, 75 ,,	512.11
November ,, ,, ,, 74 ,,	506.24
December ,, ,, ,, 75 ,,	849.35
Shs.	9901.09

The cost of transport of Stores to Asylum was Shs. 46.10.

HEALTH.

There has been no epidemic and no serious casualty has occurred throughout the year.

Three patients sustained severe cuts and bruises as a result of falls during epileptic seizures. Several others received minor injuries at the hands of fellow patients.

No case of ill-treatment on the part of attendants was observed, and no complaint was received from any patient.

Artificial restraint (handcuffs) was resorted to in the controlling of 5 violent and destructive patients for a total period of 64 hours.

Nine patients were placed in seclusion for periods which totalled 164 hours.

There were two male escapes from working parties; both were returned next day by local Akidas.

GENERAL.

An average of 45 male and female patients found daily employment in and around the Asylum.

Ten articles of furniture were made for Tanga Hospital.

Repairs were carried out and one room in the female wing was re-inforced with concrete.

The Administrative Officer, and Medical Officer, Lushoto, each paid a visit of inspection during the year.

The Matron dispensed treatment to 1009 persons from surrounding villages, a list of their ailments is attached.

Ample supplies of medical stores have been received from Headquarters during the year.

OUT-PATIENTS TREATED AT THE ASYLUM DISPENSARY.

Treated for	Persons treated
Aural discharge	20
Bronchitis	107
Burns	1
Constipation	82
Conjunctivitis	13
Debility	3
Diarrhoea	9
Eczema	1
Herpes	3
Indigestion	3
Inflammation (local)	8
Injury	31
Neuralgia	1
Pleurisy	3
Pyrexia of Uncertain Origin	75
Rheumatism	5
Scabies	16
Tooth extraction	32
Ulcers	108
Worms	488
Total	1009

Six cases of severe injury to limbs were treated in the Asylum till recovery.

VIII. RAINFALL IN MILLIMETRES.

(Extracted from the Annual Reports of the Agricultural Department.)

Station.	1924.	1925.
Arusha	1211.20	1155.50
Mbulu	—	864.10
Bagamoyo	846.46	1260.50
Bukoba	2029.40	1893.90
Biharamulo	989.42	1068.90
Dar es Salaam	735.21	1196.20
Dodoma	220.80	595.00
Manyoni	332.56	698.87
Singida	495.00	725.40
Iringa	—	663.10
Malangali	608.60	654.60
Kilwa	470.10	739.60
Kondoa-Irangi	281.10	477.60
Mkalama	520.03	678.44
Lindi	427.82	936.80
Kibata	—	1335.70
Liwale	502.70	1229.80
Tunduru	571.90	1227.60
Masasi Mission	546.30	1221.60
Mikindani	—	328.10
Mafia	1592.90	1362.01
Mahenge	1649.50	1369.95
Morogoro	857.40	778.10
Kilosa	781.40	1045.80
Ngerengere	798.69	972.17
Moshi	579.20	660.50
Mwanza	876.50	1079.30
Musoma	—	850.80
Pangani	79.82	1016.59
Utete	632.27	779.35
Tukuyu	2650.90	2521.60
Songea	667.70	1328.90
Lipumba	883.10	1227.80
Milo	1222.68	1622.70
Tabora	546.00	1303.40
Kahama	739.30	1040.35
Kola Ndota Mission (Shinyanga)	550.20	792.30
Tanga	1157.90	1149.00
Amani	1560.20	2291.00
Kigoma	786.36	1165.38
Ujiji	979.01	979.30
Namanyere	815.97	—
Kasanga	570.38	—
Kasulo	1106.10	1323.70
Lushoto	1099.60	1143.40

IX. SCIENTIFIC.

A paper entitled "Experiments on the Administration of Quinine in Watery Solution and in Olive Oil" by Dr. J. O. Shircore, Dr. J. F. Corson and Dr. P. A. Clearkin, was published in the Transactions of the Royal Society of Tropical Medicine and Hygiene Vol. XIX—No. 8—February 1926. These experiments were conducted during 1925, and the conclusion arrived at was that "quinine sulphate in olive oil, administered intravenously to the sheep, is weight for weight, 2.6 times less toxic than a watery solution of quinine bihydrochloride, and may be given up to a maximum of 0.65 grain per lb. of body weight without producing a fatal result."

A communication entitled "Yaws and Syphilis in Tropical Africa" by Dr. J. O. Shircore, which appeared in the Lancet of the 3rd July, 1926, advocated the short intensive course of mass treatment with Bismuth Sodium Tartrate on an extensive scale for those diseases, as being more applicable to the relief of the sufferers and the rapid reduction of widespread infectivity than an attempt at permanent cure of smaller numbers by prolonged and expensive methods. Experience of the use of a new compound obtained by the reaction between Bismuth Sodium Tartrate and Soamin was brought to notice and commented upon.

MERCUROCHROME AND CALCIUM CHLORIDE.

During the year a communication was received from the Secretary of State to the effect that Dr. Andrew Balfour had suggested the trial of Mercurochrome in the treatment of plague. Comprehensive accounts of the results obtained in septicaemia and pneumonia gonorrhæal sequelæ and arthritis, with Mercurochrome, and, relating to the latter affections, with Calcium Chloride, published by the United Fruit Company, Boston, Massachusetts, during 1924 in the Proceedings of the International Conference on Health Problems in Tropical America held in Jamaica, were noted.

These communications formed the basis of a circular issued to the Medical staff giving details of administration. Besides the conditions mentioned above trial was requested in spirillum fever, small-pox, typhoid, bacillary dysentery and leprosy. Sufficient data were not received during 1925 to fulfil the purposes of a report; Mercurochrome has, however, been used for bilharzia, spirillum fever, and ulcers. The results in bilharzia now indicate that it is unlikely to prove of value, but most favourable reports have been transmitted, from independent sources, regarding spirillum fever and ulcers. Apparently Mercurochrome, although it does not always prevent relapses reduces their frequency, and cuts down the pyrexial period within twelve hours—this was first reported by Dr. Connell, Medical Officer, Songea, later by Dr. Parry from Moshi and has also been experience of subsequent observers. Ulcers of septic, frambœsial, and syphilitic origin ade profoundly influenced for the better, more particularly the first named.

In Pneumonia Mercurochrome is said to shorten the course of the disease and to hasten recovery by a rapid lysis rather than by crisis.

In Gleet, Orchitis and Epididymitis beneficial results have been obtained by the use of Calcium Chloride. See also relevant notes by Dr. Connell and Dr. Blackwood on pages 103 and 109.

NOTES ON MALARIA AND BLACKWATER FEVER BY DR. T. H. SUFFERN, M.B., B.A.O., CH.B., SENIOR MEDICAL OFFICER, TABORA.

There were 1178 cases of Malaria with one death. The fatal case was one of Cerebral Malaria. There were four other cases of Cerebral Malaria who recovered.

2. There were ten cases of Blackwater Fever during the year, five Europeans, two Goans and three Indians, all males. The seasonal incidence was as follows:—

One case in January, three in March, two in April, three in May and one in September.

There were three deaths, one European and two Indians, giving a death rate of 30%. The European died of uraemia twelve days after the urine cleared.

One Indian died of suppression only 3½ days after the onset. The attack was an extremely acute and malignant one and was undoubtedly aggravated by the patient making a short railway journey to Hospital after the illness began.

The second Indian died after an illness lasting 4½ days. The attack was an extremely acute and malignant one. This man had had two attacks of Cerebral Malaria within a period of eight months.

One of the European cases, a Greek, developed an attack of Tick Spirillum Fever 13 days after the urine cleared. Whether this was the first attack or a relapse I was unable to determine. He got no relapse after a dose of .75 grammes Neokharsivan.

NOTES ON MALIGNANT DISEASES, BY DR. C. L. IEVERS, L.R.C.S., L.R.C.P., D.T.M., L.R.F.P.S., SENIOR MEDICAL OFFICER, TANGA.

I believe I saw five cases of Malignant Disease among the African Patients during the year; three of these were confirmed pathologically in Dar es Salaam. A brief account of each is as follows:—

(*a*) A Sarcoma of the left eye in a child of three. The patient was admitted to Hospital on the 1/10/25 with a caseous degenerating condition of the left eyeball. The eye was removed. On 15/10/25, the child was again admitted with a large mass filling the orbit: this was removed and a portion sent to the Laboratory, Dar es Salaam, where it was diagnosed as Sarcoma. The condition was inoperable and the child died on 28/12/25.

(*b*) A tumour was removed from a patient on 26/11/24. On the 15/12/25, he was again admitted to Hospital with an enormous tumour implicating the right Scapula and chest. The tumour was removed, but the patient died two hours after operation. A portion of this tumour sent to Dar es Salaam was diagnosed as a mixed spindle celled and round celled Sarcoma.

(*c*) A patient was admitted on the 6/11/25 with a large fungating epithelioma of the leg which had supervened on a chronic Ulcer. The leg was amputated on the following day and a portion of the tumour was sent to the Laboratory, Dar es Salaam, where the diagnosis of epithelioma was confirmed. The patient was sent to Dar es Salaam en route to his home in Nyasaland.

(*d*) A woman attended as an Out-patient suffering from Paget's Disease, but when an operation was suggested, she could not be persuaded to attend again.

(*e*) An In-patient had a mass in the abdomen very suggestive of Carcinoma: but left Hospital without operation so the diagnosis could not be confirmed.

REPORT ON A CASE OF FRACTURE OF THE SKULL BY DR. C. R. H. TICHBORNE, L.A.H., MEDICAL OFFICER, KONDOA-IRANGI.

In his village of Sandawe a man had a quarrel with his wife; on the pretence of cutting wood, he brought her out into the bush, and there attempted brutally to murder her.

The woman was brought into hospital with six wounds on her head, five of which were complete compound fractures of the vault of the skull; at first appearance the head seemed almost severed from her body, the injuries were three days old, the head wrapped in a filthy blood-stained native cloth, was covered with mud, the severed muscles and torn scalp sloughing, and a general septic state prevailed. Under these conditions the prognosis seemed hopeless, nevertheless the patient did live, and attended the court three months subsequently.

Besides a scalp wound three inches long and reaching to the bone, there were five complete compound fractures of the vault of the skull; these wounds were inflicted by a panga. The fractures were:—one left temporal, one frontal, one right parietal, one left parietal, and one fracture of occipital bone five inches long, and one and a half inch gap, all these fractures communicated with the surface of the brain, and in all cases the cerebral meninges were exposed. It would seem almost miraculous, that considering the anatomical relations of the Middle Meningeal artery, especially its anterior branch, also the Temporals externally, that these vessels could have escaped rupture, a fatal haemorrhage ensuing.

CANCER CASES, BY DR. J. H. PARRY, B.A., M.R.C.S., L.R.C.P.,

MEDICAL OFFICER, MOSHI.

During the year six cases of cancer were seen and five confirmed by microscopical sections.

Case No. I. A Chagga boy aged 12 years was admitted for a lump the size of a small tomato, 1½ inches by 1 inch, situated over the right temporo-maxillary joint, which was interfering with mastication. He had first noticed this lump two years previously. The tumour was removed and was found to be a soft vascular growth attached to the periosteum in close proximity and surrounding the Temporo-maxillary joint. No infected glands could be found. The growth was sent to the Laboratory, Dar es Salaam, and was diagnosed as a fibro-sarcoma.

Case No. II.—A Chagga man aged about 35 years was admitted for ascites. The abdomen was enormously distended and 65 pints of dark brown fluid were removed. The liver could then be felt to be enlarged with definite lumps on its anterior surface. The patient was much emaciated and the only symptoms he gave were that he noticed his abdomen getting large six months before admission. P.M.:—The liver was greatly enlarged with hard yellow growths more or less scattered throughout the whole of its area. The size of these growths varied from ¼ to 2 ins. in diameter. Secondary deposits were found in the lesser omentum and in no other place. Diagnosed by the Laboratory, Dar es Salaam, as a primary Carcinoma.

Case No. III.—A Nyasaland timekeeper in the Public Works Department was admitted for chronic ulcer of the leg which he had had for two years. He had suffered much pain recently and was unable to walk. Enlarged hard glands the size of a hen's egg could be felt in the groin. The ulcer was scraped and cleaned and a piece sent to the Laboratory which was diagnosed as Epithelioma. He refused further operative treatment and was repatriated.

Case No. IV.—A Chagga woman about 40 years old came to Hospital for a fungating mass in the right axilla which she had had for a year. A small hard fixed lump was found in the right breast which she was quite unaware of. Sections of the breast tumour and axillary mass were sent to the Laboratory and diagnosed Spheroidal Celled Carcinoma. Her condition was inoperable.

Case No. V.—An old Chagga woman with a chronic ulcer of many years standing was admitted and asked that her leg might be removed because it caused her so much pain and did not allow her to sleep and her health was rapidly declining. Amputation was performed above the knee. A specimen of this growth was sent to the Laboratory and diagnosed as Epithelioma. She regained her health and put on weight and was discharged quite satisfied. The glands in her groin diminished due in some measure no doubt to the loss of this septic mass.

Case No. VI.—An old Chagga man was admitted in a comatose condition with an enlarged liver. No history was obtained owing to his condition. P.M.—showed a large liver with scattered yellowish growths varying in size from a pea to one inch diameter. No secondary deposits in this case were found. About two pints of dark green stained fluid was present in the abdomen. The Laboratory report has not yet been received but there is no doubt that it is a primary Carcinoma of the liver.

I do not belive that malignant disease is so uncommon as it is stated to be among the uncivilised African and because of this belief many cases no doubt have been overlooked in the past. Why is primary carcinoma of the liver so common in the African when it is such a rare disease in Europe?

I am sure that a great number of the chronic ulcers sooner or later become Epitheliomatous and the fungating ulcers of old standing in the majority of cases are malignant.

NOTES ON INTERESTING CASES; VOLVULUS OF SMALL INTESTINE, BY DR. J. H. PARRY, B.A., M.R.C.S., L.R.C.P., MEDICAL OFFICER, MOSHI.

A man of about 35 years employed in the Public Works Department was seized with severe abdominal pain at 7.50 a.m. and was brought to the Hospital at 11 a.m. Previous History:—Patient had always suffered from constipation, often going four or five days without a motion and about a year ago he had been seized with abdominal pain and had been admitted to Hospital but relief followed the administration of Castor Oil. Since then he had enjoyed good health.

On admission patient was a well-nourished and a well-developed man of middle age. The abdomen was much distended and pain was chiefly situated round the navel. The pulse and temperature were normal and patient had not vomited, an enema was given and a small result followed. A diagnosis of acute Intestinal obstruction was made and an operation decided upon as early as possible, chiefly because of the rapid distension.

Operation was performed at 2-30 p.m. An incision about seven inches long was made through the right rectus muscle close to the middle line at the level of the umbilicus. The fibres of the muscle were separated and drawn outwards. The peritoneum was exposed and picked up with forceps and opened with scissors and then enlarged. Some dark stained fluid escaped and enormously distended coils of small intestine obliterated any possibility of exploration of the abdomen. A trochar and canula was inserted into the distended gut and the flatus expelled and a purse string suture was used to close the opening. The contents could then be exposed and it was found that a very large coil of small intestine having a long mesentery had become twisted a complete turn upon itself and at the constriction it appeared as if a band were the cause of the obstruction. The constricted intestine which would have measured about three feet in length was a purplish colour but in good condition otherwise.

This portion was well washed with hot saline solution and returned to the abdomen.

The abdomen was then sutured and deep interrupted sutures were used.

The patient made a rapid recovery and was discharged cured in 19 days. The bowels opened of their own accord the following day of the operation and he was found walking about on the fourth day but warned not to do it again.

The interesting points about this case were, habitual constipation, a mild attack a year before presumably a volvulus which relieved itself, sudden pain with rapid distension, no vomiting, normal pulse and temperature.

The deceptive nature of the last three symptoms made the diagnosis difficult but I believe that in cases of this kind they are by no means unusual and that the main symptom to aid the diagnosis is increasing distension.

HAEMORRHAGIC PURPURA DUE TO TICK BITES, BY DR. J. H. PARRY, B.A., M.R.C.S., L.R.C.P., MEDICAL OFFICER, MOSHI.

A Forest Officer while on safari in the Ngare Nairobi district was very severely bitten by ticks on the legs, arms and body generally. Three days afterwards he noticed a severe purpuric rash had developed on every part of the body including the palms of the hands, bleeding from gums and mucous membrane of the mouth and throat, sub-conjunctival haemorrhage, etc. He immediately came to the Hospital and when I saw him he had a temperature of 100 and pulse 80 but was not feeling very ill. There was a severe purpuric rash over the body generally varying in size from a pin's head to a large ecchymosis. There were dark purple patches on the fauces and buccal mucous membranes, bleeding from the gums which were not spongy or tender, several subconjunctival haemorrhages. No haematuria. Stools were black evidently due to bowel haemorrhages. Blood was negative for Malaria and Spirillum fever

I admitted him to Hospital where he remained for six days until much improved and then discharged him to bed in his quarters. He was able to return to work after three weeks. The only treatment he had was Calcium Lactate and Iron and Arsenic.

I attribute this haemorrhagic purpura to the toxic effect of tick bites.

I have looked up what literature I have on the subject but can find no reference to tick bites causing a severe purpura of this kind. The ticks in this instance were the ordinary grass ticks as far as I could gather from the patient.

REPORT ON TWO CASES OF RELAPSING FEVER SUCCESSFULLY TREATED BY MERCUROCHROME, BY DR. J. H. PARRY, B.A., M.R.C.S., L.R.C.P., MEDICAL OFFICER, MOSHI.

Case No. I.—A police askari who had returned from Mwanza on local leave contracted Spirillum fever there and was admitted to Hospital on his second relapse. He was given Mercurochrome 15 c.c. of 1% solution intravenously; three hours afterwards he passed blood per rectum mixed with diarrhoea which lasted for a day and a half. There was no evidence of piles to account for this blood. No other symptoms were noticed. The effect on the temperature and the spirilla was excellent, the former dropped to normal the next morning and did not recur again and he has had no further attacks since. The spirilla were very numerous in the thick blood slide taken on the day of the attack and were not searched for afterwards.

Case No. II.—This man came from Meru district and was brought to Hospital at the end of his first attack, the blood taken during the evening was not examined till the following morning and during the night his temperature came down to normal. He was kept in Hospital pending the next relapse which occurred seven days afterwards. This was also confirmed by a blood slide. He was given 15 c.c. of 1% solution of Mercurochrome intravenously and had no untoward symptoms whatever. The temperature fell to normal the next morning and rose to 99 the following day. He remained in Hospital for a further period of twelve days but had no further relapse.

Relapsing fever cases are very useful for the purpose of watching the effect of Mercurochrome because they have a definite organism and have definite relapses which can be easily observed.

The pursuit of further experiments with this obviously useful drug has been handicapped by lack of additional cases.

A CASE OF AMOEBIC DYSENTERY SIMULATING ENTERIC FEVER, BY DR. J. H. PARRY, B.A., M.R.C.S., L.R.C.P., MEDICAL OFFICER, MOSHI.

A European non-official aged 44 years was admitted to Hospital on the 12/6/25 and gave the following history. He began by feeling ill four days before admission and had been trying to get his temperature down with quinine and aspirin without success and when questioned he admitted feeling unfit for work ten days before that owing to pains in the legs and a tired feeling generally.

On admission his temperature was 101 and pulse 88, physical signs were all negative including the blood examination for Malaria on three consecutive days. He did not appear very ill and did not complain of any pain or headache. Bowels were constipated but the tongue was moist and clean. During the second week a widal was sent to the Laboratory Dar es Salaam which was negative. Two stool examinations were negative and as no septic foci could be discovered a diagnosis of enteric was made. The temperature chart of which I attach a copy* somewhat condensed simulates a chart of enteric very closely, the pulse was also slow in proportion to the temperature. The bowels were obstinate and were only relieved by enemata.

*Not reproduced.

During the fifth week blood was sent to Dar es Salaam and was negative for T.A.B. and Melitensis. Two other widals were taken in the 8th and 9th weeks, one sent to Dar es Salaam was negative and the other to Nairobi which was returned with the following comments. "This serum agglutinates B. typhosus and B. paratyphosus A.B. 1 in 25 (S+) by Dreyers method. By Garrows method T.A.B. are negative. The positive by the former method is probably due to a T.A.B. inoculation at some time and is diagnostic of Enteric in the present illness. B. melitensis, B. paramelitensis, B. abortus (Bang), B. abortus (Stockman) and B. proteus x 19 were not agglutinated by this serum." It was only in the tenth week that the slightest suspicion of hepatitis was given when the liver became tender and a little enlarged and there was some pain in the right shoulder. Frequent severe rigors occurred and in one the temperature went to 106 and the patient was extremely ill. With the symptoms pointing to a possible amoebic hepatitis or abscess Emetine gr. 1 was given daily and from then onwards steady progress was made and convalescence quickly established.

NOTES ON TWO CASES OF MALIGNANT DISEASES AND THE TREATMENT OF GONORRHEAL SEQUELÆ WITH INTRAVENOUS INJECTIONS OF CALCIUM CHLORIDE,

BY DR. A. McA. BLACKWOOD, M.B., CH.B., MEDICAL OFFICER, LINDI.

One case of cancer of the penis occurred during the year. The entire organ was removed and the patient left the Hospital remarkably fit.

One other case of tumour of the upper jaw apparently involving the hard and soft palates was observed. This presented all the appearances of a cancerous growth, and it is proposed to have this case sent to the Dar es Salaam Hospital for appropriate treatment.

Not a few cases of Gonorrhoeal infections, mainly complications, have been treated with Calcium chloride injections with very good results. Rheumatic pains have quickly cleared up and swelling of the testicle mainly Epididymitis have quickly subsided under its influence.

PRIMARY CANCER OF THE LIVER IN AN AFRICAN NATIVE, BY DR. G. A. WILLIAMS, L.R.C.P., M.R.C.S., MEDICAL OFFICER, MOROGORO.

On August 7th, 1925, the dead body of an African Native was brought to Hospital.

He was unknown and had been found dead early that morning in a house where he had been employed for a very short period as a night-watchman.

He was recognised as belonging to the Gogo tribe, he was about 5ft. 2in. in height, and probably about 45 years old.

He appeared well nourished, there were no external signs of any injury, but there was marked distension of the abdomen.

History.—Very little could be learnt of the deceased. He appeared to have been a comparative stranger to Morogoro, and had only quite lately been engaged as a night-watchman in a vacant house and premises.

His name even was unknown, but he was recognised as an Mgogo by his build and tribal marks.

He had been found dead in the morning, and he was not known to have complained of any kind of illness.

POST-MORTEM FINDINGS.

Chest.—Small amount of free fluid, which was straw-coloured. Surfaces of both lungs were found to be studded with numerous, hard, cream coloured nodules, of varying sizes up to an inch or so in length, and half an inch thick. Similar nodules were also found in the lung substance, and in the parietal pleura, and diaphragm.

Abdomen.—On opening the abdomen a large quantity of blood stained fluid gushed forth under pressure, and after clearing away the fluid, about 3 or 4 ounces of blood clot was found attached to a mass of malignant growth, in the upper epigastrium, and enclosing the termination of the portal vein.

It was a blood-vessel in this growth which had ruptured and brought about his death.

The liver was much enlarged, and was also studded with nodules, similar to those already found in the chest, except that they were of a dirty grey colour, and they varied in size, from that of a pea to that of a pigeon egg.

There were also nodules scattered throughout the liver itself, and, on section, these nodules stood out from the rest of the cut surface.

The liver and lungs were sent complete to the Director of the Government Laboratory, Dar es Salaam, and he reported the case as one of Primary Carcinoma of the liver, and kindly sent me sections of the growths, both from the liver and lungs.

In accordance with Medical Circular, No. 172 of 8/8/25, I give the following details.

Tribe.—Gogo from near Dodoma. *Age.*—About 45. *Sex.*—Male.
Occupation.—Probably, as is the custom of the members of the Gogo tribe, he had formerly been engaged in looking after cattle.
Change of Occupation.—He had recently come to Morogoro to work as a night watchman, having possibly got beyond more active work.
District where disease was contracted.—Probably in the district in which he had been born and brought up: *i.e.*, Dodoma district.
Ordinary Diet.—Meat, milk, mealies. cassava root, melons, sweet potatoes. Water is a serious question in the Dodoma district. It is scarce and brackish, and in certain seasons natives have all their time taken up in watering their cattle.
Change in Diet.—There would be no great change after coming to this district, except that he could get bananas and more green vegetables perhaps, but less meat and no milk.
Chronic Irritation of Site of Disease.—There is no evidence of this, but most probably not.

REPORT ON A CASE OF SPRUE, TREATED WITH PARATHYROID EXTRACT AND CALCIUM LACTATE, BY DR. C. F. SHELTON, M.D., L.R.C.P., M.R.C.S., ACTING SENIOR MEDICAL OFFICER, EUROPEAN HOSPITAL, DAR ES SALAAM.

E. J., Male, British, Born in London, went to the East for the first time in the early part of 1920 as a Purser in one of the B.I.S.N. Co's ships running between Calcutta, Madras, Bombay and Durban. With the exception of a few months at home in the spring of 1922, patient remained in this part of the world until the end of 1923, when he returned to England. While at home in 1922 he stated that he suffered for nearly two months from chronic diarrhoea, for which he consulted several medical men without obtaining any relief. On questioning him about this illness nothing suggestive of Sprue could be elicited. During his service with the B.I.S.N. Co. practically the whole of his time was spent on shipboard, *i.e.*. with the exception of an occasional day or so he was not resident ashore at any time. In November, 1924, patient came to East Africa, living there, first at Mombasa and then at Dar es Salaam, until his admission to Hospital at the latter place.

On 7/4/25 he was admitted to the European Hospital, Dar es Salaam, with the following history. For the last 4 weeks he had been suffering from chronic diarrhoea—had been passing 5 to 7 stools daily—and had been feeling generally unwell, weak, and able to do his work (that of a clerk in a Shipping Firm) only with an effort.

The diarrhoea commenced about 3.0 or 4.0 a.m.—was unaccompanied by any abdominal pain or discomfort, or by any soreness of the mouth or tongue. It had always ceased by midday.

On examination:—

> Patient looked ill, sallow, and thin: weight 7 st. 12 lbs. (Stated normal was about 9.0 st.) Stools loose, pale, copious, sour smelling and frothy—typical of Sprue. No involvement of tongue or buccal mucous membrane.

On 8/4/25, after a preliminary purge of Castor Oil, treatment was commenced with Parathyroid Extract and Calcium Lactate—a 12 day course consisting of gr. 1/10 Parathyroid (Parke Davis & Co's. tablets) every night and gr. 10 Calcium Lactate t.d.s. being given—the patient at the same time being kept in bed and put on a milk diet.

Improvement in the character and number of the stools was rapid and steadily maintained. From April 13th onwards he never passed more than two stools in the 24 hours—and these commenced to be formed on the 15th (*i.e.* seven days after commencement of treatment). On April 19th small amounts of solid food began to be introduced into the dietary.

On the 23rd April patient developed a severe attack of sub-tertian malaria, which, although it yielded readily to routine quinine treatment, considerably retarded his convalescence. Fortunately, however, this attack was not accompanied by any return of the diarrhoea. On May 1st soft formed stools were being passed which contained a little faecal colouring matter.

On May 25th he was discharged from Hospital and sent for a short sea voyage.

When seen on his return from this the general condition was much improved—he looked and felt well and had put on weight. When last heard from on 10/8/25 he was back at work in Mombasa and enjoying satisfactory health having had no return of the diarrhoea—although the stools were still paler than normal.

I think the results obtained in this case are sufficiently good to be worthy of recording.

I much regret I was unable to obtain any estimation of the Calcium content of the blood.

Weight records:—

7/4/25 (on admission to hospital)	7 st. 12 lbs.
25/5/25 (discharge from hospital)	8 st. 2½ lbs.
6/6/25 (return from sea)	8 st. 6½ lbs.

I wish to thank Dr. J. O. Shircore, Director of Medical and Sanitary Services, Tanganyika Territory, for kindly giving me permission to report the case.

I attach a note by Dr. H. H. Scott who first introduced the Parathyroid treatment for Sprue.

> "The Parathyroid, in contradistinction to the thyroid belongs to the parasympathetic group and any excess is disposed of. I have never seen (and doubt whether there are) signs of Parathyroid excess—whatever there may be. I tried gr. 1/10 daily and always found progress slow, and the condition after a certain amount of improvement, remain stationary. I now give gr. 1/10 twice daily for the first 4 to 6 weeks—and then reduce during the next week to once daily and the following week to every other day."

I must add that I was unable to give larger doses in this case—as I had only a very small stock of parathyroid gland with me.

A CASE OF TUBAL GESTATION ASSOCIATED WITH A TERATOMATOUS CYST OF THE OVARY,

BY DR. C. F. SHELTON, M.D., L.R.C.P., M.R.C.S., ACTING SENIOR MEDICAL OFFICER, EUROPEAN HOSPITAL, DAR ES SALAAM.

Patient.—a Seychellian—aged 30—was admitted to Hospital on 30/10/25 with the following history.

Past history.—Three children—the youngest 3 years of age.

History of present illness.—Last period commenced on August 5th last and lasted four days. It was quite normal in every way. Two days before admission had a severe attack of pain in the lower part of the abdomen which lasted for about 5 or 6 hours and was accompanied by vomiting. Pain recurred on the following day, when she passed a piece of membrane from the vagina, which patient—a very intelligent woman—kept and brought to Hospital with her. Examination of the tissue passed showed it to be a typical, almost complete, decidual cast.

State on admission.—Complaining of pain in lower abdomen. Temp. 99.2. Pulse 88.

Abdomen.—Tender all over the abdomen below the level of the umbilicus. Slight deep rigidity in L.I.F. Abdomen moved well with respiration.

P.V.—Uterus pushed forward—not larger than would be expected in a multipara. No hæmorrhage. In the pouch of Douglas, behind, a tender elastic swelling extending into the left fornix was to be felt.

Blood film showed infection with Sub-tertian parasites.

Diagnosis of an ectopic gestation with haematocele in the pouch of Douglas was made. Owing to the fact that there was no immediate urgency in the symptoms and that the blood showed a malarial infection it was decided to give quinine and to delay operation for 24 hours.

At 7.0 p.m. on the day of admission patient had a very severe attack of abdominal pain—for which an injection of morphia was given.

On 31/10/25 the pulse rate was 100 to 105 and Temp. 100.4, while there was marked deep rigidity and tenderness all over the lower half of the abdomen—but more marked on the left side. No increase in the swelling felt p.v.—no haemorrhage per vaginam. Laparotomy performed the same day by a mid-line suprapubic incision. No free blood or clot found in the peritoneal cavity and on exploring the pelvis the following were found.

1. The ampullary portion of the left Fallopian tube was found to be the seat of a small tubal mole—which had not ruptured into the peritoneal cavity.

2. The right ovary which was in the Pouch of Douglas was the seat of a small ovarian cyst—measuring about 3″ × 4″. This—together with the left Fallopian tube—was removed and the abdomen closed.

Patient made an uninterrupted recovery and left Hospital on the tenth day after operation.

Examination of specimen removed.

1. The right ovary was the seat of a teratomatous cyst containing sebaceous material together with balls of loosely intertwined hair of a dark colour. The wall of the cyst contained a rudimentary tooth embedded in:—

(a) a piece of bone.

(b) a bar of cartilaginous material.

(c) patches of tissue resembling skin.

2. Left Fallopian Tube was the seat of a very recent tubal mole. At one spot the wall of the tube was greatly thinned—i.e. a para-tubal haematocele would probably have occurred very shortly.

A CASE OF CEREBRAL MALARIA—CAUSED BY A PLASMODIUM THOUGHT TO BE IDENTICAL WITH P. TENUE, BY DR. C. F. SHELTON, M.D., L.R.C.P., M.R.C.S., ACTING SENIOR MEDICAL OFFICER, EUROPEAN HOSPITAL, DAR ES SALAAM.

The reasons for reporting this case are:—

1. Cases of Cerebral Malaria are very infrequent in Dar es Salaam. (In 1924 one fatal case and in 1923 no cases were reported from the European Hospital).

2. So far as I know this parasite has not been previously reported from East Africa.

Race	Sinhalese
Sex	Male
Age	28

Admitted to Hospital on 9/11/25.

Past History.—Left Ceylon 10 years ago—since when he had lived continuously in East Africa. Resident in Dar es Salaam and the neighbourhood for the last 8 years. Occasional attacks of "Fever" since living in Africa.

History of present illness.—For a month previous to admission had frequent irregular attacks of fever—not sufficient to prevent him working. Five days previous to admission (*i.e.* 4/11/25) the fever became much worse and he was confined to bed. Is positive that he had taken no quinine during the last month—beyond this could remember nothing about the events of last 5 days. Was brought to Hospital by some natives from his plantation situated about 6 miles out of Dar es Salaam. *On admission.* Looked very ill. Pulse 104—poor volume and tension. B.P. 75 m.m. (systolic). Lips dry and cracked. Tongue dry and furred. Sores on lips. Very apathetic dull and drowsy. Not absolutely comatose—as he could be roused with great difficulty to answer a few simple questions but was quite unable to give any connected account of himself. Speech slurred and indistinct with great difficulty in articulation. No convulsions. No meningeal symptoms. Liver and Spleen not enlarged. No abnormal signs in heart or lungs. No jaundice or vomiting. Retention of urine—eighteen ounces urine drawn off by catheter. The urine was high coloured and contained a moderate cloud of albumen, but no haemoglobin or bile. Blood film crowded with malarial parasites. Definite mental improvement occurred after intravenous injection of 4 grains of quinine bihydrochloride—given dissolved in 10 c.c normal saline.

On 10/11/25 general condition—both physical and mental—much improved. On 12/11/25 pulse, temperature, and cerebral condition were quite normal.

Discharged from Hospital quite well on 17/11/25.

Note on parasites found.—The parasites in the blood appeared to be identical morphologically with the form described by Professor Stephens—and named by him *Plasmodium tenue* (Proceedings of the Royal Society B. Vol. 87 1914)—as

1. Judging from stained films the parasite seemed to be extremely amoeboid.

2. The cytoplasm was always scanty.

3. The nuclear chromatin was relatively greater in comparison to the bulk of the parasite than is the case with *P. falciparum*—and in addition was very irregular in shape and arrangement.

4. Typical rings were relatively few in number. Dr. J. F. Corson has forwarded thin films from the above case to Professor Stephens for consideration or otherwise.

CASE OF LIVER ABSCESS TREATED BY ASPIRATION AND EMETINE INJECTIONS BY DR. C. F. SHELTON, M.D., L.R.C.P., M.R.C.S., ACTING SENIOR MEDICAL OFFICER, EUROPEAN HOSPITAL, DAR ES SALAAM.

H.R. British, Male, Age 36. Admitted to the European Hospital, Dar es Salaam on 24/10/25 with the following history:—

Past history.—Between the years 1909 and 1925 has served abroad in the following places:—

Alexandria, Aden, Lisbon, Sierra Leone and Mozambique (stationed at this latter place from August 1924 to August 1925). Except for an occasional attack of malaria had always enjoyed fairly good health. No clinical history of dysentery.

History of present illness.—While at Mozambique had two attacks of "fever", which he thought was malaria and for which took quinine.

In the early part of April of the present year commenced to suffer from chronic diarrhoea—passing from 3 to 4 stools daily—occasional attacks of abdominal colic and vomiting—no sweating at nights—no blood or mucus in the stools. At the same time he noticed a steady deterioration in his general health and strength. Left Mozambique on 10/8/25.

On 20/8/25 commenced to have pain over the region of the Liver and base of the right lung—the pain extending up towards the right shoulder—and was admitted to Hospital (not in this Territory).

On 24/8/25 while in Hospital he commenced a 16 day course of E.B.I. (48 grains in all)—with a resultant improvement in all his symptoms—although he states that the pain never quite disappeared. On 21/9/25 he embarked on board a passenger ship for passage home—but was transferred here the next day by the Ship's Surgeon owing to a severe recurrence of the pain in the liver region.

State on Admission.—Looked emaciated—complexion sallow, no complaint of pain except on movement. T. 100, Pulse 90 to 100, Tongue clean and moist.

Abdomen.—Spleen not palpable. Liver edge not definitely felt—rigidity and tenderness present over the upper part of the right rectus.

Chest.—Heart H.A.B. in 5th space—½″ external to nipple line.

On the right side in front there was absolute dulness on percussion up to the 5th rib in the Ant. Axillary line.

Behind over the base of the right lung percussion note was absolutely dull up to the level of the 6th rib—partially so up to the 4th.

Over the whole of this dull area V.F. and V.R. were almost absent—breath sounds also much diminished—and coarse friction was heard over the same area—both behind and in the axilla. Left lung normal.

Further examination.—X Ray screen showed the right dome of the diaphragm pushed up and almost immobile on respiration—the heart at the same time being displaced to left.

Blood.	No Malarial parasites. ... ... Leucocytes	6000
	Polymorphs	63%
	Lymphocytes	27%
	Large mononuclears	9%
	Eosinophiles	1%

Faeces No *Entamoeba Histolytica* found.

In view of the fact that there did not appear to be any immediate urgency in this case—and of the fact that the patient had had no emetine by injection it was decided to give a course of this drug hypodermically before proceeding to explore the chest.

One grain of emetine daily was given between the 22/9/25 and 27/9/25 (six grains in all)—but with very slight improvement in the symptoms and no alteration in the physical signs.

On 30/9/25, under general anaesthesia, the chest was explored with an exploring syringe through the 8th intercostal space in the mid-axillary line. Pus was struck at a distance of about 1½″ from the surface and 45 ozs. was drawn off by means of a Potain's Aspirator—the pus evacuated being typical of that from an amoebic abscess of the liver and proving to be sterile on subsequent bacteriological examinations.

Further treatment and course.—Gr. 2 of Emetine was given hypodermically at the time of aspiration—as recommended by Thurston (*Lancet*, November, 1924) and a further course of 1 grain daily for the next three days. In view of the fact that a full course of E.B.I. had already been given when in Hospital the first time, and that repeated and daily examinations of stools failed to show the presence of Histolytica cysts no further course of this drug was given. Patient made an uninterrupted recovery and left Hospital on 24/10/25 when his condition was as follows:—

General Condition good. Colour much improved. H.A.B. ½″ internal to N.L. Heart sounds normal.

Slight impairment of percussion note at the base of right lung behind—with slight diminution of V.F., V.R., and breath sounds. No friction sounds heard. No tenderness or pain over liver.

When last heard from on 10/12/25 was in good health with no signs of a recurrence.

Report on the Treatment of Seven Cases of Gonorrhoea by Intravenous Injections of Mercurochrome and Calcium Chloride, by Dr. W. K. Connell, M.B., Ch.B., Medical Officer, Songea.

All these patients, in addition to the intravenous injections, irrigated twice daily with 1 in 10,000 $KMnO_4$; but Prostatic Massage was stopped. Orchitis patients did not irrigate. All patients were male Africans in the King's African Rifles.

Name	Disease	Treatment	Result
Hassani	Relapse case of Gonorrhoea.	21.11.25-10 c.c. of 5% CaCl2 intravenously. 28.11.25 -do- 30.11.25 -do- 2.12.25-10 c.c. of 10% -do- 4.12.25 -do- 6.12.25 -do- 8.12.25 -do-	A clinical cure.
Bingu	Acute Gonorrhoea	7.11.25-15 c.c. of 2.5% Mercurochrome intravenously. 14-11-25-10 c.c. of 5% CaCl2 intravenously. 21.11.25 -do- 28.11.25 -do- 30.11.25 -do- 2.12.25-10 c.c. of 10% -do- 4.12.25 -do-	A clinical cure.
Kasuku	Chronic Gonorrhoea (? Prostatitis) Old infection.	7.11.25-15 c.c. of 2.5% Mercurochrome intravenously. 14.11.25-10 c.c. of 5% CaCl2 intravenously. 21.11.25 -do- 28.11.25 -do- 30.11.25 -do- 2.12.25-10 c.c. of 10% CaCl2-do- 4.12.25 -do- 6.12.25 -do- 8.12.25 -do-	A clinical cure.

Name	Disease	Treatment	Result
Shabani	Chronic Gonorrhoea. "Light up"—Acute Orchitis.	27.11.25-15 c.c. of 2.5% Mercurochrome intravenously. 29.11.25 -do- 1.12.25-20 c.c. -do- 3.12.25-25 c.c. -do-	A clinical cure (N.B.—The Orchitis disappeared after the second injection).
Hamisi Mwandogo	Chronic Gonorrhoea. "Light up"—Acute Orchitis.	28.11.25-15 c.c. of 2.5% Mercurochrome intravenously. 30.11.25 -do- 2.12.25 -do- 4.12.25-10 c.c. of 10% CaCl2.	A clinical cure (N.B.—The Orchitis disappeared after the second injection).
Asumani	Chronic Gonorrhoea.	7.11.25-10 c.c. of 5% of CaCl2 intravenously. 14.11.25 -do- 21.11.25 -do- 28.11.25 -do- 30.11.25 -do- 2.12.25-10 c.c. of 10% -do- 4.12.25 -do- 6.12.25 -do- 8.12.25 -do-	A clinical cure.
Sulemani	Chronic Gonorrhoea.	14.11.25-15 c.c. of 2.5% Mercurochrome intravenously. 21.11.25- -do- 28.11.25 -do- 30.11.25-10 c.c. of 5% CaCl2. 2.12.25-10 c.c. of 10% -do- 4.12.25 -do- 6.12.25 -do- 8.12.25 -do-	A clinical cure.

"Clinical Cure" means that all discharge stopped completely and that the patient felt alright. $CaCl_2$ will certainly stop a "Gleet".

It is significant that the askaris now *ask* for $CaCl_2$ treatment, which proves that they feel much the better for it.

A fairly severe Stomatitis sometimes follows the use of Mercurochrome; also some or all of the reactions mentioned in Medical Circular 174. The injection of $CaCl_2$ causes a sensation of intense heat all over the body (but especially in the perineal region); if the full dose—10 c.c. of 10% solution—be injected too rapidly, the patient breaks into "cold sweat" becomes faint and collapses: about 3 minutes should be spent over the injection of this maximal dose.

REPORT ON A CASE OF SYPHILITIC MYELITIS BY DR. F. R. LOCKHART, M.B., CH. B., MEDICAL OFFICER, DODOMA.

The patient, a female aged about 30 years, was admitted complaining of pain and spasticity of the lower limbs of 6 months duration.

There was a history of syphilis contracted about 12 years previously. No Wassermann test was made.

The pain was stabbing in type, radiating around the waist and in the legs. It was irregular in occurrence.

The Argyll-Robertson pupil was present, ataxia, Romberg's sign and the muscle-joint sense otherwise impaired.

On the other hand the knee jerk was extremely active, Babinski's sign positive and marked spasticity of the lower limbs, with developing paresis, present.

All forms of skin sensation appeared to be unimpaired and there was no involvement of the sphincters

The case was one in which the lesions were presumably more widespread than in normal Tabes Dorsalis and in which the descending as well as the ascending tracts were involved. The retention of sensation, ascertained with care, was surprising.

Under anti-syphilitic treatment the condition appeared to be arrested and the patient absconded.

An Account of the Leper Camp at Ndanda with Notes on Treatment, By Dr. R. Mackay, M.B., Sanitation Officer, Lindi.

The leper camp at Ndanda is run on the lines of a self-supporting village having a plentiful supply of good water all the year as well as it own land for agicultural facilities. It is situated some six miles from the Mission and a member of the staff is responsible for the management of the settlement while a Nursing Sister treats the patients.

There are to date a total of 41 in the camp as follows:—

Males	16
Children	9
Females	16

The incidence of the disease as seen in the camp at the end of 1924 when there were 17 lepers is according to the following figures:—

	Men	Women	Children
Macular...	11.4%	28.4%	0%
Anaesthetic	6.5%	11.4%	0%
Maculo-anaesthetic	6.5%	0%	0%
Showing no symptoms	11.4%	6.5%	19.9%

Of the 17 lepers in the camp at that time 6 were males (adult), 8 females and 3 children.

In 1925 the Mission in the surrounding district sent in more cases and an increase of 24 is noticed for the year. Of the 24 admitted in 1925 10 were males, 8 females and 6 children. The following percentages are rough indications of the incidence of the disease as seen in those admitted in 1925:—

	Men	Women	Children
Macular...	20.8%	12.5%	4.1%
Anaesthetic	0%	8.3%	0%
Maculo-anaesthetic	12.5%	8.3%	0%
Showing no symptoms	8.3%	4.1%	20.8%

Of the 41 lepers in the camp 1 only is maimed and unable to support himself. All the adult lepers in the camp are married.

The following is the average percentage of the types of the disease as seen in the camp at the end of 1925:—

	Men	Women	Children
Macular...	16.1%	20.45%	2.05%
Anaesthetic	3.25%	9.8%	0%
Maculo-anaesthetic	9.5%	4.15%	0%
Non-Leprotic	9.8%	5.3%	20.35%

Cases of supposed Leprosy occasionally find their way into the camp usually sent in from the surrounding districts by the Administrative Officer in charge. The diseases which are mistaken for Leprosy are in this case Tuberculous lesions of the skin, Yaws and Syphilis. To avoid mistakes of this nature Administrative Officers in the vicinity of Ndanda have been advised to send all doubtful cases to the nearest Mission for diagnosis.

The drugs used in the treatment of Leprosy at Ndanda are "Hydnestryle" and an Italian preparation "Antilebbrina". The Ethyl Hydnocarpate and Olive oil are used in equal parts (50 c.c. of each) with 10 gm. Thymol. Doses of 5—10 c.c. of this preparation are given subcutaneously twice a week. The initial dose is 1 c.c. which is increased by 1 c.c. until the maximum dose of 10 c.c. is reached. This is continued until the patient shows either improvement or signs of toxicity from the drug.

"Antilebbrina" is given in gradually increasing doses starting with ½ c.c. endodermically. This is given daily until 12 doses have been reached when the dose is increased to 1 c.c. which is continued with for 12 more days when the dose becomes 1½ c.c. and so on until a maximum of 3 c.c. a day is being given.

This drug has not been tried by mouth in the case of the Ndanda Lepers.

The results obtained have been disappointing as no apparent change has taken place after treatment. As an alternative form of the drug, the Ethyl-ester of *Hydnocarpus wightiana* with camphor, creosote and Olive oil being less expensive than the preparation in use and perhaps used more was suggested to the Sister in Charge.

No attempt at prophylaxis has been made in the camp and as there are so many children within the susceptible age showing no signs of the disease, it was suggested that a voluntary segregation method be resorted to namely, the children to live in a building separated from their parents' homes which they could reach daily to do their ordinary day's work but not to feed or sleep there. There is every facility for a scheme of that nature to come into effect in the village; the management of the dormitory could be included in the duties of the Nursing Sister and member of the Mission responsible. An attempt to get the relations to look after non-infected children had previously failed.

It is proposed to visit the camp from time to time and if possible to bring about the changes mentioned.

The oldest leper in the camp had the disease in 1895.

BABY SHOW AT KAHAMA.

Extract from a Report by Senior Sub-Assistant Surgeon D. G. Kelkar, L.C.P. & S. Bombay.

I have the honour to inform you that through the kindness of the Administrative Officer in Charge, Kahama we have been able to hold a Baby Show on the Armistice Day (11th November, 1925). The children and their mothers from the near Sultanates were invited by the Administrative Officer to present themselves for the show and the ready response heartily given by the Natives speaks for itself in that there was a gathering of about 6,000 Natives (men, women and children) ready at the Boma on the morning of the 11th; children of all ages from 3 months old to 12 years were present.

Objects and Reasons:—

(i) to promote Maternity and Child Welfare.

(ii) To bring home to the Natives the importance of the care of the Infants and thus assist towards the increase of population.

(iii) To ingrain the sense of social service and mutual help.

(iv) To contribute to Educational Propaganda and the spread of knowledge regarding Public Health and Hygienic Measures.

(v) To collect statistics regarding the Prevalent Diseases amongst them.

(vi) To distribute small presents to a hundred selected babies (normal, healthy, well cared for) before the whole gathering in order to encourage other mothers to take more care of their children.

Management and the Proceedings:—A committee consisting of three (Mrs. Lake, Mr. Hari Singh the Sub-Assistant Surgeon, and D. G. Kelkar, Senior Sub-Assistant Surgeon) was formed to inspect and choose normal healthy babies and collect statistics regarding the percentage of the Prevalent Diseases amongst the Native children. The interests from the Administrative standpoint were watched by Mr. F. J. Lake, the Administrative Officer. Housing, Feeding and the general management was arranged by Mr. S. M. Beg the Administrative Clerk. Mr. Prichard the Senior Telegraph Inspector, Mwanza, the Revd. Fathers from the Mbulu Mission and the Native Sultans were the interested guests.

The inspecting committee began the work at 3 p.m. on the 11th. The children and their mothers were lined in rows of hundreds and the babies inspected and statistics noted down, the normal healthy babies were selected on one side. The work was done up to 6 p.m. that day and put over for the next day on account of the rain and the large number still remaining. On the 12th the work was finished at 12 noon, and the following statistics were arrived at from the 3,500 babies inspected:—

Apparently healthy	30%
Enlarged Spleens	28%
Hereditary Syphilis	20%
Yaws and other skin lesions	8%
Anaemia, under nourished, Intestinal worms, etc.	14%

Out of the 1,050 apparently healthy babies one hunderd babies were selected for prizes, taking care that a few from each Sultanate are selected in order to act as an advertisement to the whole of the Sultanate.

At 4 p.m. before the whole gathering, with Mrs. Lake in the Chair, Mr. F. J. Lake, the Administrative Officer in Charge, delivered an address explaining the purpose of the gathering and drew a clear picture before them of the present state of their children's health and urged them to apply freely for treatment at the Government Hospitals to get rid of the diseases which are a menace to general health. In a few words I assured them that we of the Medical Department were their friends—ever ready to assist them—and that they should open-heartedly meet us and apply for treatment at the Hospital or outside.

At 6 p.m. the prizes were distributed to the selected babies by Mrs. Lake and the gathering dispersed.

DENTAL REPORT FOR THE YEAR 1925.

By H. M. Fisher, Esq. L.D.S., R.C.S.

The following is a summary of the dental work performed during the year for the European Officials and their families.

The Staff consisted of the writer and two native orderlies.

The work continues to increase; it will be noticed when compared with the reports of previous years to what a large extent the mechanical work has increased; a very great deal of time is spent in doing it: in the opinion of the writer the time has come, when the appointment of a dental mechanic should be considered; time spent in performing this work could be more profitably employed in other branches of dental surgery; time would be available for the regular inspection and treatment of the native school children, the K.A.R. and Police, etc.; a beginning has been made in this direction, but much to the writer's regret, a very small one. It would, presumably, be more desirable to employ a mechanic at a much smaller salary to do this class of work, than a dental surgeon at a much larger one.

The following stations were visited during the year:—

May:	Tanga, Lushoto.
May-June:	Arusha.
June:	Moshi, Tanga, Zanzibar.
September:	Kigoma, Tabora, Dodoma.
December:	Morogoro.

Seventy-two days were spent in visiting out-stations and travelling.

The following is a summary of the operations performed for the European Officials and families.

The number of scalings shewn are cases of pyorrhoea treated; ordinary scaling is carried out as a routine measure and is not recorded.

Attendances	1488
Fillings, crowns	607
Extractions	328
Pulp treatment	74
Scaling	48
Dentures	73
Repairs to dentures	71

Zanzibar Officials have attended for treatment as in the past, Zanzibar being visited by the writer in June.

Attendances	84
Fillings	41
Extractions	18
Scalings	7
Pulp treatment	8
Dentures	2
Repairs	2

Asiatic officials and their families have been treated when they have presented themselves for treatment.

A number of natives from the various Government Departments and the native town have been treated; this work consists almost entirely of extractions, but a few fillings have been done for them when considered necessary.

The children from the School, K.A.R. and Police Lines have been treated from time to time, about 100 in all; a number of their permanent teeth have been filled, but the work consists chiefly in extracting septic temporary teeth which are generally in a bad condition.

It is not pretended that the native work done is adequate, or is it to the satisfaction of the writer; satisfactory treatment depends on ample time being available in which to do it, and this is not the case.

It is necessary to emphasize that the dental condition of the African is not up to the high standard usually pictured; dental caries and the results therefrom are common in the town natives teeth.

A dental X-ray machine was purchased during the year, and was available for use in November; the results so far have been particularly good; it will be of the greatest help and benefit to the department.

Captain A. S. Newton joined the Department as a Dental Surgeon in October and was posted to Tanga; this officer's services are shared by this Territory and Zanzibar, a third of the year being spent in the latter Protectorate. This appointment will free the writer from visiting the Northern Areas and Zanzibar; it is hoped instead, that he will be able to visit the Southern Areas, the residents there, it is understood, being much in need of attention.

OBSERVATIONS ON THE TRAPPING, POISONING, AND GASSING OF RATS, BY SANITARY SUPERINTENDENT J. S. HUMPHREY, A.R. SAN. INST., AT THE HEALTH OFFICE, DAR ES SALAAM.

REPORT FOR 12 MONTHS ENDING DECEMBER 31ST, 1925.

Rats (General). Up to the 22nd of May, three boys (paid by the Health Department) were employed as ratcatchers. Since that date, one Askari from the K.A.R. has also been working as a ratcatcher, trapping in the K.A.R. Cantonment area only. The township is divided into 8 districts, and one matting bag, for collecting dead rats, is used in each district. The bags are each labelled with the name of its particular district. Every morning the "catch" is taken to the Laboratory and a blood smear is taken from about one rat in very ten caught in each district. The The carcases are then burned. The accompanying map* shows the method of dividing the Township into districts. The monthly catches were fairly consistent, and the average cost per rat killed by trapping,† of 4.83 cents, shows a decrease over the six preceding months of 2 cents per rat. Judging from reports from other parts of the world this "cost per rat" killed is very low.

I may also say that in the "costing" the money spent on poison-bait vehicles is included, but not the cost of the poison itself The total number of rats killed by poisoning is not included in the "costing". The number of poison baits taken during the year was approximately 1,125 and the number of baits laid was approximately 4,000.

The Police and K.A.R. Lines were trapped regularly every day.

Number of Rats caught. The total number of rats caught during the year was 23,154. (The largest number caught in one month was 2,436, caught in September). Of this total 23,037 were *Rattus Rattus Alexandrinus*, and 117 were *Rattus Rattus Norvegicus*. Out of these numbers there were caught at:—

K.A.R. Lines	6,921 rats
Police Lines	3,872 rats
	9,893 leaving 13,144 caught in the town.

Traps. An average daily number of 200 Break-back (Nipper) traps were in use. The catches averaged approximately 34.13 rats for every 100 traps laid. As our stock of wire cage traps was not of a suitable type for catching rats here, I constructed a "Powell" trap, according to specification laid down in the Union of South Africa health pamphlet No. 238 of March, 1924. The cost of making one of these traps would be about Shs. 10/-.

The trap was baited with fish, bread, muhogo, copra (roasted), and meat, and placed in various places in the Township on several different nights. No rats were caught. Although this type of trap is very serviceable in South Africa it would seem to be of no use here.

I afterwards modified the trap by fixing an entrance from an old German wire trap, when it proved very successful. Practically all the *Rattus rattus norvegicus* were caught in this trap in the neighbourhood of Acacia Avenue and Selous Street junction, in the shops of Messrs. Kassum Sunderji, and Messrs. Moloo Brothers.

The following table shows the details of the rat trapping campaign for the year:—

SUMMARY.

Catchers employed	Average No. of traps used daily	Total No. of traps laid	Rats caught	Percentage of rats caught according to traps laid
Civilian 3 ... Military 1 ...	200	67,640	Alexandrinus ... ... 23,037 Norvegicus 117	34.24
			Total ... 23,154	

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*Not reproduced.

†Supervision not included.

Cost. Cents of a shilling.

Labour ...	90,800 (not including wages of the Military rat catcher).
Bait ...	11,400
Depreciation of traps	6,000
	108,200 cents of a shilling divided by 23,154 rats caught equals a cost per rat caught of 4.67 cents.

Poisons. In accordance with the request of the Honourable the Director of Medical and Sanitary Services I experimented with powdered glass mixed with maize flour and sodium arsenite: also maize flour and Barium Carbonate: nine different lots of rats were used in numbers of from 2 to 5 in each lot. Four or five baits mixed with glass were introduced along with 3 or 4 ordinary meal "baits" and one or two Standard Barium Carbonate baits. In no case, (even though the baits other than the "glass" ones were insufficient to provide a reasonable meal for the number of rats being used) was the glass bait eaten. Two or three single rats were not given any food for 24 hours, plenty of water being given. Glass baits were than fed to them.
A bait consisting of 1½ grs. Barium Carbonate
1½ ,, Ground Glass
12 ,, Maize meal
was eaten and the rat died about 12 hours afterwards.

Two baits of 10 milligrammes of Sodium Arsenite
5 ,, ,, Ground Glass
250 ,, ,, Meal
were eaten, and the rats died in 40 hours.

In view of the fact that baits mixed with ground glass were eaten very reluctantly and only when the rats were on the verge of starvation, experiments were discontinued.

Poison baits consisting of the Standard Barium Carbonate* formula were used throughout the year. Baits were laid in:—

Government House.
,, Dockyard.
,, School.
King's African Rifles' Lines.
Infectious Diseases Hospital.
European Hospital.
Agricultural Buildings.
2 Private Houses.
Post Office.
Government Press.

The number of baits laid was approximately 4,000 and the number taken was 1,125. Assuming that 800 rats were killed by the 1125 baits eaten, and that maize meal cost cents 4 per pound, the cost of killing the 800 rats was approximately 40 cents. This is not counting the cost of the 20 ozs. of Barium Carmonate used, (11¼*d* per lb. approximately).

In each case the poisoning was reported on as being very successful, except in the case of the Dockyard; but about the time of laying the poison in the Dockyard the Superintendent's little dog was "ill", so it was assumed that it had eaten a poison bait. This probably accounts for the fact that the poisoning was not reported as being successful, although more than the average number of baits was eaten.

Gassing with SO_2; using a smoke test apparatus. Operations on a small scale were conducted for several days in the K.A.R. cantonment, but the results were not very satisfactory.

*Barium Carbonate 7 grammes or 108 grains.
Maize Meal 50 ,, ,, 771 ,,
made into a paste with water, makes 50 baits containing approximately two grains of Barium Carbonate per bait.

Baits for Traps. The common bait used was Cassava root (locally known as Muhogo) but occasional changes were made with bread, cooked meat, etc. The cassava root is certainly the best bait procurable for use in Nipper traps.

Fleas. Three lots of fleas were sent to the Laboratory for classification. These fleas were taken from batches of *Rattus rattus alexandrinus* and *Rattus rattus norvegicus.* All were identified as *Xenopsylla Cheopis.*

The following method is used for taking fleas from live rats. The rats are placed in a special cage. A large glass specimen jar is partly filled with a week Izal solution. The cage (which fits nicely inside the jar) is then immersed and left for a few minutes after the rats are drowned. The cage is then shaken under water, after which it is withdrawn. The fleas float to the surface of the water and can then be easily collected. Each carcase can then be easily examined for any odd flea which may be stuck to the body of a rat.

Owing to a shortage of efficient wire traps for catching live rats, it was not possible to make a record of fleas—(species of fleas per rat and fleas per species of rat etc.).

Rat-proofing. Native houses are, almost without exception, infested with rats. From my own observations, and from information gathered from natives, I find that the rats almost always live in the roofs. It would appear that the method of building the huts allows of a space at the apex of the roof, which forms an ideal nesting place for rodents.

I do not think rats nest in between the layers of makuti. I would therefore suggest that future native huts could be made rat (nest) proof. The sketch below* illustrates my suggestions. If a special rat proof table or cupboard was also made for keeping foodstuffs therein, I think it would be a material help towards keeping down the rat numbers.

A cheap and effective method of making a rat-proof cupboard is shewn also below*.

The Rosehaugh Ginnery was completely rat-proofed during the year. All the rats inside were trapped or poisoned and not a single rat has been seen inside the ginnery since.

Classification. Skins of the common black rat of this locality were sent to the British Museum for classification. They were kindly identified by Mr. Hinton as *Rattus rattus alexandrinus.*

One large rat caught in the bush was identified by the Director of Laboratory as a *Cricetomys Gambianus.* It is a white-tailed pouched rat and measures about 28 inches from nose to tail. This rat was mounted and put in the Museum.—(Kiswahili "Buku". J.O.S.).

*Not reproduced: the sketch illustrates a shield for attachment to posts, legs of cupboards, etc.

ANNUAL REPORT OF THE BACTERIOLOGICAL LABORATORY AT DAR ES SALAAM.

For the year ending 31st December, 1925.

By Dr. J. F. Corson, M.D., Ch.B., D.P.H., D.T.M. & H.

GENERAL.

1. *Staff.* Dr. Lester was in charge of the Laboratory until February 19th and Dr. Corson from February 19th to the end of the year. Dr. Speirs worked in the Laboratory for about a month in June and Dr. Burke-Gaffney from September 8th to the end of the year. Dr. Butler, Director of the Laboratory, left the service on transfer elsewhere and Dr. Clearkin was appointed to succeed him. Mr. Hammond, Laboratory Assistant, was present throughout the year. An additional labourer was engaged from September 1st, 1925.

2. *Equipment.* An electric refrigerator arrived, in a broken condition unfortunately, and has not yet been available for use. It was got mainly to keep calf lymph at a lower temperature than that of an ice chest.

ROUTINE WORK.

1. *Blood examinations.*

(1) *Blood films.*—Total 4,048; Europeans 759; Asiatic 1,227; African 2,062.

Parasites found	European	Asiatic	African
Malaria—			
Trophozoites	128	348	484
Crescents	2	1	4
Spirillum duttoni	1	1	18
Microfilaria bancrofti	—	—	116
,, *perstans*	—	—	2
Differential cell count	17	5	—
Total ,, ,, ...	3	6	—

The great majority of malarial parasites were **Plasmodium falciparum.** Thick films, almost exclusively, were received and the method of simultaneous dehaemoglobinisation and staining with weak Giemsa's solution (1-30) was used.

Sufficient opportunity did not occur to compare thick and thin films to enable an opinion to be formed on the value of this method of treating thick films for distinguishing species of parasite. The rare occurrence of gametocytes of *P. vivax*, even in the somewhat hasty examination of a large number of blood films, suggested that this infection was rare. It is possible also that the method is not suitable for discrimination and it is desirable that comparative examinations should be made. In addition, 48 films were received for examination for the presence of trypanosomes which were found in 38. The figures have no special significance. About another thousand films were examined in the couse of special investigations.

(2) *Blood culture.* Total 11; Europeans 7; Asiatics 3; African 1. No pathogenic organism was isolated.

(3) *Agglutination tests.* Twenty-six tests were made for typhoid fever with positive results in 7 cases.

(4) *Wassermann tests.* Total 112; Europeans 19; Asiatics 13; Africans 80.

2. *Faeces.*

(1) *Microscopical.* Total 1120; Europeans 97; Asiatics 56; Africans 967.

Parasites found	European	Asiatic	African
Ova of—			
Ancylostomes	—	11	355
S. mansoni	1	—	12
T. trichiura	—	3	13
Strongyloides	2	—	25

Ascaris	1	2	13
Strongyloides	2	—	25
Entamoeba histolytica	6	1	6
Flagellates	3	—	35

(2) *Bacteriological.* This method of isolation of organisms was used in 35 cases. In 3 cases *B. dysenteriae* Flexner was isolated and in 1 case *B. dysenteriae* Shiga.

3. *Urine.* Total 225; Europeans 69; Asiatics 74; Africans 72; Ova of *Schistosoma haematobium* were found in 1 European and 30 Africans. Sugar was present in 11 specimens. A few examinations were made for *B. typhosus*, *B. coli* and *B. tuberculosis.*

4. *Sputum.* Total 217; Europeans 16; Asiatics 52; African 149. *B. tuberculosis* was found in 4 Asiatics and 49 Africans.

5. *Smears of exudations, surface lesions, etc.*

(1) *Leprosy.* Total 91; *B. leprae* found in 18, all Africans.

(2) *Gonorrhoea.* Total 93. Gonococcus found in 27.

(3) *Various.* A throat swab from a European showed a monilia and a streptococcus. The monilia gave the sugar fermentation reactions of *M. pinoyi* Castellani. Smears and cultures from a few cases of intramuscular abscess showed staphylococci only.

6. *Pathological histology.* There has been a satisfactory increase in the amount of material sent for microscopic examination from other stations. The tissues received included the following,—carcinoma of liver, carcinoma of breast, epithelioma of skin of leg, papilliferous cyst of ovary, endothelioma, sarcoma, lymphosarcoma, fibrosarcoma, angioma, tubal mole, sexual gland of case of 'hermaphroditism,' elephantiasis of breast, tuberculous tissue, etc. Besides Dar es Salaam these were received from the following stations, Arusha, Dodoma, Kigoma, Lindi, Morogoro, Moshi, Singida, Songea, Tanga and Tabora.

7. *Miscellaneous.*

(1) *Medico-legal examinations.* Ten specimens were examined at the request of the police. They did not include anything of special medico-legal interest.

(2) *Plants, roots etc.*. Various specimens were received said to possess poisonous or medicinal properties. They were usually roughly tested by feeding to rats. The bruised bark of *Euphorbia candelabrum*, said to be used as a fish poison, was found, on experiment, to kill small fish fairly rapidly. The fish became sluggish in movement and appeared stupefied. The respiration became jerky and the fish died in 3/4 hour. Another species of euphorbia, *E. cuneata*, common in hedges in Dar es Salaam, is said to have a latex very irritating to the human eye. When rubbed on the forearm and when applied to a guinea-pig's eye, no apparent effect was produced.

8. *Public Health Laboratory Work.* It has been the practice to make chemical examinations for the Sanitation Branch of the Medical Department, the Customs, Public Works and Railway Departments. Certain specimens, the examination of which required the skill of a qualified analyst, had to be declined.

(1) *Mineral water and other waters.* Bacteriological examination of 19 specimens of mineral water and chemical examination of 25 specimens of other water were made.

(2) *Milk.* 51 specimens of milk and 8 of condensed milk were examined chemically. There were no unusual features.

(3) *Other food substances.* 3 specimens were examined.

(4) *Rats trapped in Dar es Salaam.* Total 22,768.

They were examined for signs of plague with negative results. They arrived dead owing to the use of killing traps, so could not be examined for fleas.

9. *Meteorological records.* In the absence of a literate native staff these have been kept by Mr. Hammond.

Monthly Temperatures. Rainfall.

Month	Highest	Mean Max.	Lowest	Mean Min.	Mean Rel. Humid.		Total inches	No of days including Showers	Most in a day
					9. a.m.	4. p.m.			
January	91·4	86	69·8	75·5	78·7%	79·7%	8·5	13	2·3
February	91·4	86·2	71·6	75·5	80	81·3	4·6	12	0·8
March	91·4	88	70·8	73·5	71·3	72·1	2·25	6	1·6
April	94·1	85·7	69·8	74·5	78·4	77·5	4·35	16	0·9
May	91·4	87	66·2	70·9	75·4	81·5	2·08	14	1·2
June	88·6	86	62·6	68·7	79	61·8	1·8	8	0·4
July	86·8	84·5	63·5	66·8	79·6	63·5	1·46	3	0·9
August...	87·8	85·3	63·5	66·8	67·4	56·4	0·03	4	0·03
September	87·8	83·5	65·3	68·3	69·5	66·8	1·48	7	0·5
October	88·7	86·2	68	70·9	74·2	70·7	2·1	7	1·0
November	90·5	87	71·6	74	80	77·4	5·8	14	1·2
December	91·4	88	70·7	77·9	80·7	73	12·6	11	3·73

10. *Calf-lymph.* For the last few years Mr. Hammond has had charge of this important branch of routine work. The quality of the lymph has been very satisfactory on the whole. A special observation of over 20 consecutive batches of lymph, made by Dr. Parry at Moshi, showed an average rate of success of from 60 to 70 per cent. During the year 260,600 doses were made, 261,050 were issued, 97 calves were used and 682 grammes of pulp obtained. The technique was the same as in previous years. In no case have anaerobic organisms appeared in the culture test.

NOTES AND SPECIAL ENQUIRIES.

Malaria. The figures of routine blood examinations of Europeans give a fairly accurate indication of the incidence of malarial fever of any severity among Europeans in Dar es Salaam. For several reasons, some obvious, others less so, this does not apply to natives attending the native hospital. A few sampling examinations have been made. Two examinations of pupils of the Government school in Dar es Salaam were made, one on the 19th June and the other on the 22nd September, *i.e.* towards the end of the rainy and dry seasons respectively, so far as such terms can properly be applied to the climate of Dar es Salaam. The following figures show the results in groups of approximate ages.

(1) Examination on the 19th June.

Age	Malarial trophozoites	Crescents	Negative	Total	%
6-9	23	1	8	31	74·2
10-13	37	3	23	60	61·6
14-17	15	...	23	38	39·5
18 and over	5	...	6	11	44·4
	80	4	60	140	57·1

(2) Examination on the 22nd September.

Age	Malarial trophozoites	Crescents	Negative	Total	%
6-9	35	...	14	49	71·4
10-13	63	...	20	83	75·9
14-17	20	1	16	37	56·7
18 and over	8	...	15	23	34·7
	126	1	65	192	64

Taking all pupils between the ages of 6 and 17, in June 58.1% showed infection while in September there were 70.4%. During the three months preceding the June examination roughly 10 inches of rain fell on 42 days, while during the quarter preceding the September examination 2 inches of rain fell in 12 days. Monthly average figures of relative humidity are shown under the heading of meteorology. The question of the influence of various factors on the parasite rate is naturally very complex. An examination of the pupils of the same school made last year, during the period September to December, showed an infection rate of 52.04%. It seems probable therefore that there is a fairly high parasite rate in children and adolescents of the native population of Dar es Salaam all the year round. An examination of 100 adult male employees of the Sanitation Department of Dar es Salaam was made on November 20th and malarial parasites were found in 20%.

Ancylostomiasis. Owing to practical difficulties in obtaining stools after treatment, investigation as to the kind of infecting worm could not be carried out. The few specimens recovered were all *Necator americanus.*

Filariasis. Attention was given to the examination of microfilariae occurring in the blood. They were found in 6.7% of nearly 800 thick films received in the course of routine work and taken, with very few exceptions, if any, in the day time. About 5% of school pupils and of prisoners showed microfilariae in blood taken in the forenoon. An examination of thick blood films of 100 adult patients in the Sewa Hadji Hospital at Dar es Salaam, taken at about 10 p.m. on November 18th, showed *Mf. bancrofti* in 22% and *Mf. perstans* in 2%. A similar examination of 100 adult male employees of the Sanitation Department of Dar es Salaam, the blood being taken between 6.45 and 7.15 a.m. on November 20th, showed 33% infected with *Mf. bancrofti* and 1 with *Mf. perstans.* The two species mentioned only were found, *Mf. bancrofti* being of much more frequent occurrence than *Mf. perstans*, as was noted by German observers. Though occurring in the blood in some numbers in the daytime in some cases, *Mf. bancrofti* was found to have a well marked periodicity in all the cases investigated. Little is known of endemic centres in the territory. Both species are known to be prevalent near the big lakes. In Bukoba district the incidence of *Mf. perstans* was found by German observers to be very high. Captain W. H. Dye has recently found 40% of the people living in the Liwale district infected with *Mf. perstans* a figure somewhat higher than that (31.5%) found by Mr. Irvine, Sub-Assistant Surgeon, last year in the same area. Captain Dye found *Mf. bancrofti* in 4% of blood films of the same population taken in the daytime. Mr. Webster and Mr. Greening, of the Political Department, have kindly sent some interesting figures, compiled by the latter, of the occurrence of elephantiasis in Mafia Island. They are shown in the following table.

District	Population (approx.)	Scrotum	Leg	Both	Total
Magemani	1,600	22	16	5	43
Utende	4,400	46	33	16	95
Bweni	1,700	29	10	6	45
Balleni	2,200	43	27	15	85
	9.900	140	86	42	268

It has not been possible yet to obtain blood films from this population.

Schistosomiasis. In 1911 attention was directed to the probable heavy incidence and wide spread of urinary schistosomiasis in the territory. In this year Dr. Wolff recorded an investigation made in the Lindi district, where he found 33.4% of persons infected among 1000 examined. Dr. Beck, in 1913, found infection in over 50% of the children of areas near Tunduru. Probably owing to the fact that it frequently causes little interference with daily life, comparatively few cases have been treated in most of the station hospitals in recent years. Besides the Lindi district, prevalence has been noted at Tanga, in the area near Lake Nyassa, in the Ukerewe mainland

and Majita in the Mwanza district and at Mkudani near Mbulu in the Arusha district. In 1921, Dr. Butler, then Director of the Laboratory at Dar es Salaam, found 20% of 435 prisoners infected. In August 1925 the urine of 50 school boys in Dar es Salaam of apparent ages ranging from 6 to 10 years was examined and ova of *Schistosoma haematobium* were found in 16=32%. In November, 1925 an imperfect examination of the urine showed infection in 11% of 46 small boys at Maneromango, about 40 miles south of Dar es Salaam. At Tabora this year, Dr. Meek has found infection in 31% of 164 school children and in 15% of adult prisoners. In a personal communication Dr. Meek says "The infected school children included cases from Tabora, Shinyanga, Kahama, and Nzega. About half the number appeared to have been infected at Shinyanga. Practically all the cases having their origin at Tabora, appeared to have been infected at the Rufita pool where the *Bullinus* were found."

Search for an intermediate host. In the Laboratory report for 1921, Dr. Butler mentions finding a few kinds of snail in Dar es Salaam. While stating that he was not in a position to identify these definitely, it appeared to him that a species of *Bullinus* was found in Bagamoyo Pool and *Physa* or *Physopsis* as well as *Planorbis* in streams, the position of which is unfortunately not given. He says "In all the specimens of *Physa* cercariae were found which were thought to resemble the human bilharzial type. What was hoped to be a satisfactory solution of the problem has however unfortunately been found to fail, for the cercaria found was probably derived from the bilharzia of a bird. All the other types of snail gave entirely negative results. An attempt to infect snails with human miracidia failed."

In 1925 search was made at Dar es Salaam but no species of *Bullinus* was found. No snails were found at Bagamoyo Pool. In the drains at Gerezani and Msimbazi two kinds of snails were found which were identified at the British Museum as *Melanoides zengamus* (Morelet), very closely related to *M. tuberculata* (Muller), and *Theodoxis natalensis* Reeve, In addition *Ampullaria speciosa* Phillipi was found in Dar es Salaam. None of these harboured cercariae at all resembling those of human schistosomes. About 300 *M. zengamus* were dissected and all were infected with cercariae, of which 2 kinds were seen, one with the oral sucker armed with a stylet and the other trichocercous. In June and July two species of snail were received from Dr. Meek, Sanitation Officer at Tabora, collected from pools there. They were identified at the British Museum as *Isidora* (*Physopsis*) *nasuta* v. Martens and *Lanistes ovum* Peters. One out of 30 specimens of *L. ovum* dissected was infected with a non-human cercaria. *I. nasuta* was found in 4 different places in or close to Tabora. Dissection gave the following result:—

Locality	Dissected	Furcocercous	Xiphidiocercous	Both
Chem-chem swamp	19	...	7	...
Mwanza Road...	78	13	3	2
Rufita	34	8	...	...
Main Street	50	...	19	...

Forked-tailed cercariae without "eye-spots" were noted by Dr. Meek in *I. nasuta* from Rufita Pool, where some cases of urinary schistosomiasis seemed to have been infected. Other specimens of *Isidora*, not yet identified, from the Tabora sub-district of Karunde showed no infection. Snails collected by Dr. Williams from Mafisi near Morogoro, unfortunately all dead on arrival, were identified at the British Museum as *Isidora* (*Physopsis*) *martensi* Germain, probably identical with *I. globosa* Morelet, *Limnaea undussumae* von Martens, and *Lanistes ovum* Peters. Specimens of, apparently, *Lanistes & Ampullaria*, collected in the district of Dar es Salaam by Dr. Scott showed no infection with forked tailed cercariae. Snail shells collected by Dr. Mackay at Masasi in the Lindi district, where urinary schistosomiasis is very prevalent, have not yet been identified. No species of *Bullinus* could be found there.

Infection Experiments.

(1) *Snails.* Attempts were made without success to infect *M. zengamus* and *I. nasuta*, the latter from the Chem-chem swamp, Tabora. Neither snail when observed under the microscope appeared to show attraction for miracidia of *S. haematobium.* Once or twice a miracidium was seen to attach itself to the protruding head of the snail but let go again and swam away.

(2) *Laboratory animals.* Four young white rats, a guinea-pig and a monkey (*Cercopithecus*) were exposed to infection by cercariae of *I. nasuta* from the Tabora pools. They were kept alive for periods of from 70 to 90 days, examinations of faeces and urine being made and finally they were killed and dissected. The results were negative.

Morphology of the cercaria. A complete description cannot be given because the details searched for under the microscope could not be distinguished clearly enough to be convincing. The cercaria appeared to be consistent in measurements and all observable characters with descriptions by Manson-Bahr and Fairley, by Blacklock and in Byam and Archibald's book on tropical medicine. The flame cells could not be counted nor the mucin cells. Two groups of 5 refractile dots, apparently droplets, seen in the ducts traversing the oral sucker, suggested that there were probably 5 pairs of mucin ducts and glands. Droplets were also seen on the tips of the spines when protruded. The ventral sucker was markedly prominent. The following measurements of 4 specimens were made with a camera lucida:—

	I.	II.	III.	IV.
LENGTH				
Body	145	138	150	140
Trunk of tail	198	210	195	170
Furci	70	70	75	60
BREADTH				
Body	55	62	70	48
Trunk of tail	30	32	30	25
Furci	10	10	10	9
ORAL SUCKER				
Length	60	52	57	55
Breadth	35	36	38	34
VENTRAL SUCKER				
Diameter	20	25-28	20	15

The cercariae were fixed in hot 70% alcohol. It is of interest that cattle have no access to the Rufita pool.

Conclusions. An intermediate host still remains to be found. *I. nasuta* may be suspected, being the only snail in which cercariae resembling those of human schistosomes were found. More extended observations and experiments are required. Detail has been given on account of the local interest. As regards incidence it may be suggested that sampling examinations of the population in various parts of the territory would show much higher figures than are indicated by hospital reports of recent years.

INJECTIONS OF DRUGS SUSPENDED IN OIL.

Some interesting results were obtained from experiments on the effects of the intravenous injection of quinine sulphate suspended in oil which were carried out in the Laboratory by Dr. Shircore, Director of Medical and Sanitary Services. They have been recorded elsewhere. It was found that in sheep a much larger dose could safely be given in this way than in solution. Dr. Shircore also made a series of experiments on the effects of intraspinal injection of trypanocidal drugs, Fourneau 309 and neosalvarsan 914, suspended in oil, using monkeys for the experiments. It was found that large doses of 309 could be given and neosalvarsan appeared to be considerably less toxic when mixed with oil than in watery solution.

ENTOMOLOGICAL EXAMINATIONS.

(1) *Tsetse flies.* Examination of the male genitalia of a few batches of flies showed the following proportions.

Source	No. examd.	*G. mors.*	*G. pallid.*	*G. palp. fuscipes*
Liwale	83	82	1	...
Tabora to Kigoma	31	30	...	1
Mr. Kelkar's collection	9	8	1	...
German collections...	51	32	18	1

The collection of flies and other arthropods of Mr. Kelkar was made in 1922-23 whilst travelling with the Belgian and English Boundary Commission. According to the accompanying notes, *G. morsitans* was found at altitudes of 4,200 and 4,600 feet.

(2) *Ticks.* Specimens of *Ornithodorus moubata* from the following places were examined for spirochaetes by staining smears of the fluid that exuded on pulling off a leg.

Locality	No. examd.	*S. duttoni* found.
Dar es Salaam	40	...
Kilosa	30	...
Manercmango	7	...
Morogoro	86	14
Singida	73	...

The spirochaetes found were for the most part similar to those found in the blood, being long and having numerous curves. Short forms also occurred. An attempt to infect a white rat failed. From the fact, however, that spirochaetes were only found in ticks from Morogoro and from different parts of that town, it is unlikely that they were not *S. duttoni.* A monkey was not inoculated.

Some specimens of *Amblyomma variegatum* were included in Mr. Kelkar's collection.

(3) *Fleas.* Specimens of *Xenopsylla cheopis and X. braziliense, Ctenocephalus, Leptopsylla* and *Dermatophilus* were received.

(4) *Ceratopogine midges.* Small midges collected from the window panes of the Laboratory and a bungalow were sent to Dr. J. W. Scott Macfie to whom thanks are due for the following identified list.

> *Forcipomyia murina* (Winn), F. *bi-annulata* Ingram and Macfie, *F. lepidota* Ingram and Macfie, *F. corsoni* Macfie, *Culicoides austeni* Carter, Ingram and Macfie, *C. bedfordi* Ingram and Macfie, *C. distinctipennis* Austen, *C. pycnostrictus* Ingram and Macfie, *C. schultzei* (End), *C. similis* Carter, Ingram and Macfie, *Dasyhelia flava* Carter, Ingram and Macfie, *D. inconspicuosus* Carter, Ingram and Macfie.

(5) Some specimens of *Liperosia thirouxi* Roubaud were collected by Dr. Shircore, feeding on a recently shot zebra. The place was above Elpon's Pass at a height of 3300 feet; the time dusk; country thorn bush; August.

Specimens of *Culex trifilatus* Edwards were bred by Dr. Shircore from larvae found by him in rock pools at a water-fall on the river Hasafiro between Iringa and Songea at a height of 6,250 feet in August.

These two sets of flies were identified at the British Museum.

Papers published during the year on work done in the Laboratory.

Corson (J.F.). A note on microfilariae in Tanganyika Territory. *Annals of Tropical Medicine and Parasitology* Vol. XIX. No. 4 December, 1925.

Corson (J.F.). The protection of the head against the sun's rays in Tropical Africa. Jl. Trop. Med. and Hyg. Vol. XXIX No. 1.

Acknowledgments. For sending interesting material and for help in many ways, acknowledgment is made to the following, Miss Allardes and Miss Kemsley, Messrs. Cayless, Greening and Webster, Drs. Aders, Armstrong, Dye, Graham, Mackay, Maclean, Owen, Parry, Phillips, Shelton, Speirs and Williamson. The Laboratory is particularly indebted to Mr. Fisher, Government Dental Surgeon; Mr. Hornby, Veterinary Pathologist; Drs. Lester, Scott, Meek and Williams and to Mr. Robson and Major Connolly of the British Museum.

J. O. Shircore,
Director of Medical and Sanitary Services,
Tanganyika Territory.

RETURNS.

Table I.

Medical Staff:—Disposition of as on 31st December, 1925.

Name and Qualifications.	Rank.	Station.	Remarks.
J. O. Shircore, M.B., Ch.B., (Edin.), L.R.C.P., L.R.C.S. and L.R.F.P.S. (Edin. and Glas.), M.R.C.P. (Edin.).	D.M.S.S. ...	Dar es Salaam	
J. Pugh, M.R.C.S. (Eng.), L.R.C.P. (Lond.).	D.D.M.S. ...	,, ...	
A. H. Owen, B.A. (Camb.), M.R.C.S. (Eng.), L.R.C.P. (Lond.), D.T.M. and H (Camb.).	D.D.S.S. ...	,, ...	
P. A. Clearkin, M.B., Ch.B., B.A.O. (Belf.), D.P.H. (Irel.).	D. of L. ...	,, ...	En route—arrived 4-1-26.
J. F. Corson, M.D., Ch.B. (Manch.), D.P.H., D.T.M. and H. (Cantab.).	Asst. Bacteriologist	,, ...	
C. L. Jevers, L.R.C.S., L.R.C.P. (Edin.), D.T.M. (Liv.), L.R.F.P.S. (Glas.).	S.M.O. ...	Tabora	
T. H. Suffern, M.B., B.A.O., Ch.B. (Roy. Univ. Irel.).	,, ...	Tanga	
J. McK. Clark, M.B., Ch.B. (Aberdeen), D.T.M. (Liv.).	,, ...	Mahenge ...	
R. R. Scott, M.C., M.B., B.S. (Durham), M.R.C.S. (Eng.), L.R.C.P., D.P.H. (Lond.).	S.S.O.	Dar es Salaam	
J. H. Thomson, M.B., Ch.B. (Aberdeen).	S.M.O. ...	On leave ...	
C. R. H. Tichborne, L.A.H. (Dublin).	M.O.	Kondoa-Irangi ...	
C. R. Wallace, L.R.C.P., L.R.C.S., L.M. (Irel.).	,, ...	On leave ...	
G. R. C. Wilson, M.R.C.S. (Eng.), L.R.C.P. (Lond.).	,, ...	,, ,, ...	
C. B. B. Reid, M.B., Ch.B., (Edin.), D.T.M. (Liv.).	,, ...	Tukuyu	
J. H. Parry, B.A. (Cantab.), M.R.C.S. (Eng.), L.R.C.P. (Lond.).	,, ...	Moshi	
A. McA. Blackwood, M.B., Ch.B. (Glas.).	,, ...	Lindi	
J. G. McNaughton, M.D., M.R.C.P., M.B., C.M. (Edin.).	,, ...	On leave ...	
C. H. Phillips, L.M.S.S.A., (Lond.).	,, ...	Arusha ...	
G. Maclean, M.B., Ch.B. (Glas.), D.T.M. (Liv.).	,, ...	S. S. duty ...	Ufipa-Tabora Area.
G. A. Williams, L.R.C.P. (Lond.), M.R.C.S. (Eng.).	,, ...	Morogoro ...	
W. H. Dye, M.R.C.S. (Eng.), L.R.C.P. (Lond.), L.D.S., R.C.S. (Eng.), D.T.M. and H. (Lond.).	,, ...	S. S. duty ...	Liwale Area.
C. F. Shelton, M.D., L.R.C.P., M.R.C.S., (Lond.).	,, ...	Dar es Salaam	European Hospital.
R. Nixon, M.B., Ch.B., D.T.M., D.P.H. (Liv.).	S.O.	Tanga	
A. I. Meek, L.R.C.P., L.R.C.S., D.P.H. (Edin.), L.R.F.P. and S (Glas.).	,, ...	Tabora	
J. J. B. Edmond, M.C., M.B., Ch.B, (Edin,), D.T.M. and H .(Lond.).	M.O.	Kasanga ...	
O. Fitzpatrick, M.B., Ch.B. (Edin), L.R.C.P., L.R.C.S. (Edin.), L.R.F.P. and S. (Glas.).	,, ...	On leave ...	

RETURNS—*Contd.*

TABLE I.—*Contd.*

Medical Staff:—Disposition of as on 31st December, 1925—*Continued.*

NAME AND QUALIFICATIONS.	RANK.	STATION.	REMARKS.
A. R. LESTER, M.B., B.S. (Bombay), F.R.F.P.S., (Glas.), D.P.H., D.T.M. and H. (Edin.).	M.O.	Mwanza	
W. K. CONNELL, M.B., Ch.B. (Glas.).	,,	Songea	
F. R. LOCKHART, M.B., Ch.B. (Manch.).	,,	Dodoma	
D. V. LATHAM, B.A., M.B., Ch.B., B.A.O. (Dublin).	,,	Lushoto	
T. LANGAN, M.B., Ch.B., B.A.O. (Dublin).	,,	Tabora	
H. FAIRBAIRN, M.B., Ch.B. (Glas.).	,,	S. S. duty	Mwanza Area.
J. WILLIAMSON, M.B., Ch.B. (Edin.).	,,	Tabora-Kahama Rly. construction	
C. R. STEEL, M.R.C.S. (Eng.), L.R.C.P. (Lond.).	,,	Dar es Salaam	Native Hospital
J. W. GRAHAM, M.B., Ch.B. (Glas.).	,,	Kigoma	
R. C. SPEIRS, M.B., Ch.B. (Edin.).	,,	Kilosa	
J. S. ARMSTRONG, M.C., B.A., M.B., Ch.B., B.A.O. (Dublin).	,,	Dar es Salaam	Native Hospital
H. J. O'D. BURKE-GAFFNEY, M.B., Ch.B., B.A.O. (Dublin), C.T.M. (Lond.).	,,	,, ,, ,,	Attached to Laboratory.
R. MACKAY, M.B., Ch.B. (Aberdeen),	S.O.	Lindi	
B. O. WILKIN, M.B., Ch.B. (Edin.),	M.O.	Pangani	
J. C .R. BUCHANAN, M.B., Ch.B. (Edin.), D.T.M. and H. (Eng.).	,,	S. S. duty	Ufipa-Tabora Area.
A. MCKENZIE, L.M.S.S.A., M.B., B.S. (Lond.), D.T.M. and H. (Lond.).	S.O.	Mwanza	
G. S. P. NOBLE, M.B., Ch.B. (Glas.).	M.O.	S. S. duty	Ufipa-Tabora Area.
L. A. WILLMOTT, M.R.C.S., L.R.C.P. (Lond.).	,,	Bukoba	
I. SANDERSON, M.B., Ch.B. (Edin.).	,,	Singida	
H. M. FISHER, L.D.S., R.C.S. (Eng.).	Dental Surgeon	Dar es Salaam	
A. S. NEWTON, L.D.S. (Liv.).	,, ,,	Tanga	
MISS F. M. PLANT	S.N.S.	Dar es Salaam	European Hospital.
MISS J. FRASER	,,	Tanga	
MISS E. L. KEMSLEY, R.R.C.	,,	Dar es Salaam	Native Hospital.
MISS E. BISHOP	,,	Tabora	
MISS B. G. ALLARDES	Sister and Health Visitor	Dar es Salaam	Maternity and Child Welfare.
MISS W. R. GRANT	Nursing Sister	Mwanza	
MISS M. H. B. MACRAE	,, ,,	Tanga	European Hospital.
MISS M. DONALD	,, ,,	Dar es Salaam	
MISS K. THOMPSON	,, ,,	On leave	
MISS A. MUNCASTER	,, ,,	,, ,,	
MRS. K. M.TURNLEY	,, ,,	Arusha	
MISS J. E. WOOTTEN	,, ,,	On leave	European Hospital.
MRS. E. L. EVANS	,, ,,	Dar es Salaam	
MISS E. HASLETT	,, ,,	Tanga	Native Hospital.
MISS K. P. HECKFORD	,, ,,	Dar es Salaam	
MISS D. A. PORTER	,, ,,	Tabora	
MISS O. BORRETT	,, ,,	Moshi	
MISS I. D. MCDONALD	,, ,,	Tabora	
MISS M. C. L. MAPP	,, ,,	Dar es Salaam	European Hospital.

RETURNS—*Contd.*

TABLE I.—*Contd.*

Medical Staff:—Disposition of as on 31st December, 1925—*Continued.*

NAME AND QUALIFICATIONS.	RANK.	STATION.	REMARKS.
MISS C. M. BISHOP	Nursing Sister ...	Dar es Salaam	European Hospital.
MISS L. M. BISHOP, ...	,, ,, ...	,, ,, ,,	,, ,,
MISS E. B. CRICHTON	,, ,, ...	,, ,, ,,	,, ,,
MISS A. L. RYDER	,, ,, ...	Tabora	Child Welfare Clinic.
MISS M. E. FRASER	,, ,, ...	...	En route—arrived 4-1-26.
MISS M. KAY	,, ,, ...	...	,, ,,
MISS J. B. WATT	,, ,, ...	...	,, ,,
MISS M. D. WHITE	,, ,, ...	...	,, ,,
M. C. LEMOS, F.C.P.S. (Calcutta).	Asst. Surgeon ...	Iringa	
B. G. PANDIT, L.C.P. and S. (Bombay).	Senior S. A. S.	Bagamoyo ...	
D. G. KELKAR, L.C.P. and S. (Bombay).	,, ,,	...	Anti-Yaws duty.
D. A. PURANDRE, L.C.P. and S. (Bombay).	S. A. S.	Bukoba	
DEWAN CHAND, Cert. Lahore Medical School.	,, ...	Dar es Salaam	Native Hospital.
Y. L. MOOLE, L.C.P. and S. (Bombay).	,, ...	On leave ...	
C. K. BORSADA, L.C.P. and S. (Bombay).	,, ...	Kilwa	
P. S. PARANJPE, L.C.P. and S. (Bombay).	,, ...	Arusha	
J. F. MACEDO, L.C.P. and S. (Bombay).	,, ...	Dodoma ...	
Y. B. KELSHIKAR, L.C.P. and S. (Bombay).	,, ...	Dar es Salaam	Native Hospital.
M. C. K. THOMAS, L.M.S. (Travancore).	,, ...	Tabora	
G. V. SAKRIKAR, L.C.P. and S. (Bombay).	,, ...	Pangani ...	
K. R. PAGADALA, L.C.P. and S. (Bombay).	,, ...	On leave ...	
B. K. CHRISTIAN, L.C.P. and S. (Bombay).	,, ...	Ujiji	
M. P. DAVE, L.C.P. and S. (Bombay).	,, ...	Dar es Salaam	Attached Health Office.
A. K. PATHREEKAR, Cert. Hyderabad Deccan Medical School.	,, ...	Mwanza ...	
T. M. JOSEPH, L.M.P. (Madras).	,, ...	Mkalama ...	
CHUNILAL KHANNA	,, ...	Kigoma ...	
S. R. ABHYANKAR, L.C.P. and S. (Bombay).	,, ...	Tanga	
W. A. IRVINE, L.C.P. and S. (Bombay).	,, ...	Tabora	
C. K. DESAI, L.C.P. and S. (Bombay).	,, ...	Mwanza ...	
P. V. GOKHALE, L.C.P. and S. (Bombay).	,, ...	Moshi	
M. B. PANDYA, L.C.P. and S. (Bombay).	,, ...	Tanga	
SANT RAM, Cert. Lahore Medical School.	,, ...	Morogoro ...	
A. M. BHOSLE, L.C.P. and S. (Bombay).	S. A. S.	S. S. duty ...	Ufipa-Tabora Area.

RETURNS—*Contd.*

TABLE I.—*Contd.*

Medical Staff:—Disposition of as on 31st December, 1925—*Continued.*

NAME AND QUALIFICATIONS.	RANK.	STATION.	REMARKS.
HARI SINGH, L.S.M.F. (Punjab). ...	S. A. S.	Kahama ...	Ufipa-Tabora Area.
D. A. MHAISKAR, L.C.P. and S. (Bombay).	,, ...	Lindi	
W. R. BOWRY, L.M.F. (Bengal). ...	,, ...	Musoma ...	
DEWAM SINGH, M.P.L. (Lahore). ...	,, ...	Kilosa	
V. S. NIJASURE, L.C.P. and S. (Bombay).	,, ...	Shinyanga ...	
G. V. GODBOLE, L.C.P. and S. (Bombay).	,, ...	Songea	
HARBAL SINGH, L.M.F. (Punjab). ...	,, ...	Utete	
S. E. PURAM, L.C.P. and S. (Calcutta).	,, ...	Kibaya	
G. A MHAISKAR, L.C.P and S. (Bombay).	,, ...	Manyoni ...	
N. B. TOTE, L.C.P. and S. (Bombay).	,, ...	Kondoa-Irangi	
G. V. SANE, L.C.P. and S. (Bombay).	,, ...	Kasulo	
MALUK SINGH, L.S.M.F. (Punjab).	,, ...	Kisaki	
RAM SINGH, L.S.M.F. (Punjab). ...	,, ...	Mwaya (Tukuyu)	
P. N. NAIR, L.M.P. (Madras). ...	,, ...	Mikindani ...	
L. CORO, Malta University. ...	,, ...	Namanyere ...	

PRINCIPAL CHANGES.

TRANSFERS.

Dr. G. G. Butler, M.B.E., Director of Laboratory, transferred to Lagos, Nigeria, 30th September, 1925.

Dr. P. F. Nunan, Senior Medical Officer, transferred to Kenya 1st August, 1925.

LEAVE OF ABSENCE.

Europeans.

Dr. G. G. Butler, M.B.E., Director of Laboratory, 19th February till 29th September.

Dr. R. R. Scott, M.C., Senior Sanitation Officer, 12th April till 28th October.
Dr. J. H. Thompson, Senior Medical Officer, 6th December till the end of the year.
Dr. C. R. H. Tichborne, Medical Officer, beginning of the year till 3rd August.
Dr. C. R. Wallace, Medical Officer, 6th September till the end of the year.
Dr. G. R. C. Wilson, Medical Officer, 14th September till the end of the year.
Dr. C. B. B. Reid, Medical Officer, 7th February till 11th July.
Dr. J. G. McNaughton, Medical Officer, 23rd May till the end of the year.
Dr. C. F. Shelton, Medical Officer, beginning of the year till 6th February.
Dr. A. I. Meek, Medical Officer, beginning of the year till 18th March.
Dr. J. J. B. Edmond, M.C., Medical Officer, 28th January till 22nd September.
Dr. O. Fitzpatrick, Medical Officer, 3rd December till the end of the year.
Miss J. Fraser, Senior Nursing Sister, beginning of the year till 25th April.
Mrs. M. A. Cartlidge, Nursing Sister, 21st April till 3rd September.
Miss M. H. B. Macrae, Nursing Sister, beginning of the year till 19th February.
Miss M. Donald, Nursing Sister 7th April till the end of the year.
Miss K. Thompson, Nursing Sister, 8th June till the end of the year.
Miss A. Muncaster, Nursing Sister, 26th October till the end of the year.
Miss J. E. Wootten, Nursing Sister, 3rd December till the end of the year.

Mr. C. D. Dovey, Medical Storekeeper, 24th November till the end of the year.
Mr. H. W. Hassard, Assistant Medical Storekeeper, 11th April till 30th November.
Mr. P. W. Morgan, Building Inspector, 24th November till the end of the year.
Mr. W. A. Moore, Sanitary Superintendent, 14th July till the end of the year.
Mr. R. E. Owen, Sanitary Superintendent, beginning of the year till 10th August.
Mr. T. Bell, Sanitary Superintendent, 7th October till the end of the year.
Mr. N. M. Moore, Clerk-Storekeeper, 25th July till the end of the year.

Asiatics.

Mr. J. F. Macedo, Sub-Assistant Surgeon, beginning of the year till 1st February.
Mr. Y. B. Kelshikar, Sub-Assistant Surgeon, 2nd June till 24th November.
Mr. M. C. K. Thomas, Sub-Assistant Surgeon, beginning of the year till 1st March.
Mr. K. R. Pagadala, Sub-Assistant Surgeon, 22nd September till the end of the year.
Mr. J. C. X. Rodrigues, Compounder, 7th October till the end of the year.
Mr. E. Dias, Compounder, 17th November till the end of the year.
Mr. Habibullah Khan, Compounder, 2nd December till the end of the year
Mr. Ahmed Din, Compounder, 23rd October till the end of the year.
Mr. Mehtab Singh, Compounder, 13th March till 3rd September.
Mr. A. Varma, Compounder, 28th December till the end of the year.
Mr. D. B. Somvasi, 4th Grade Clerk, beginning of the year till 25th May.
Mr. J. B. da Cunha, 2nd Grade Clerk, 10th March till 3rd September.
Mr. P. de Mello, 4th Grade Clerk, 3rd October to the end of the year.
Mr. J. de Souza, 1st Grade Clerk, 20th October to the end of the year.

TABLE II.

FINANCIAL.

Expenditure:—

PERSONAL EMOLUMENTS.

	£	£
Medical Division:		
Director of Medical and Sanitary Services, Deputy Director of Medical Service	2,200	
Clerical Staff, Medical Storekeepers, Packers, Messengers, etc.	4,214	
Senior Medical Officers	3,911	
Medical Officers	15,888	
Dental Surgeons	989	
Nursing Staff	5,225	
Superintendent and Matron, Lunatic Asylum ...	648	
Indian Medical Assistants *i.e.* S.A.S's and Compounders	13,087	
Native Dispensers and Native Hospital Attendants	4,228	
Other charges	425	
	50,815	
Sanitation Division:		
Deputy Director of Sanitary Services and Sanitation Officers	3,797	
Subordinate Staff for the suppression of Epidemic Diseases	6,718	
Laboratory Division:		
Director of Laboratory and Assistant Bacteriologist, Laboratory Assistant and other personnel temporarily attached to Laboratory	2,623	
Total Personal Emoluments		63,953†

†Not including the local Compensatory Allowance paid to the European Staff, totalling, approximately, £5,665.

	£	£
OTHER CHARGES.		
Administrative Division:		
Incidental Expenditure	601	
Medical Division:		
Miscellaneous charges	1,520	
Sanitation Division:		
Maintenance of Lepers, Lunatics and Incurables ...	3,610	
Sanitary Labour	11,457	
Upkeep of Infectious Diseases Hospitals	1,374	
Sanitary Oils and Disinfectants	481	
Sanitary Equipment...	1,682	
Uniforms	368	
Laboratory Division:		
Vaccines and Serum	169	
Miscellaneous	507	
Special Expenditure:		
Sleeping Sickness and Special Sanitary Measures ...	1,654	
Venereal Diseases and Yaws	935	
Maternity and Child Welfare	58	
Hospitals, Dispensaries and Lunatic Asylum: Maintenance of:		
Medical and Surgical Stores	19,214*	
Equipment and Furniture	5,612*	
Upkeep of Hospitals	11,656	
Upkeep of Lunatic Asylum at Lutindi	497	
Uniforms	200	
Miscellaneous Expenditure:		
Books of Reference	211	
Travelling Equipment	789	
Transport Railage and Passages	11,476	
Total Other Charges		74,071
TOTAL		138,024

*These totals represent the estimated cost of indents under these particular sub-heads despatched during 1925.

Receipts:

STATEMENT OF REVENUE, 1925.

	£
From Hospital Fees, Sale of Drugs, etc	5,450
Fees collected by Port and Marine Department for Bills of Health	952
Sale of Vaccine and Serum	3
Sale of Lymph	20
	£6,425

TABLES V AND VI.

Return of Diseases and Deaths (In-Patients) and of Diseases (Out-Patients) for the Year 1925.

DISEASES	In-Patients					Out-Patients			Total Cases In and Out Patients
	Remaining in Hospital at the end of 1924	Yearly Total: Admissions	Yearly Total: Deaths	Total Cases Treated	Remaining in Hospital at the end of 1925	Males	Females	Total	
I. Epidemic, Endemic, and Infectious Diseases									
1. Enteric Group—									
(a) Typhoid Fever	...	26	3	26	4	2	...	2	28
(b) Paratyphoid A.	...	2	...	2	...	...	...	...	2
(c) Paratyphoid B.	...	...	...	...	...	...	...	...	...
(d) Type not defined	...	...	...	...	...	...	...	...	...
2. Typhus	...	...	...	...	...	...	...	...	...
3. Relapsing Fever	6	182	5	188	7	54	17	71	259
4. Undulant Fever	...	...	...	...	...	...	...	...	...
5. Malaria—									
(a) Tertian	12	2,263	9	2,275	21	9,879	2,276	12,155	14,430
(b) Quartan	...	8	...	8	...	9	7	16	24
(c) Aestivo-autumnal	9	1,709	11	1,718	25	8,532	1,219	9,751	11,469
(d) Cachexia	2	222	7	224	12	739	381	1,120	1,344
(e) Blackwater	2	49	15	51	1	1	...	1	52
(f) Cerebral	...	9	8	9	...	1	...	1	10
6. Smallpox—...	1	15	1	16	...	6	2	8	24
Alastrim	...	...	...	...	...	...	...	...	...
7. Measles	...	9	...	9	...	47	26	73	82
8. Scarlet Fever	...	...	...	...	...	1	...	1	1
9. Whooping Cough	...	10	...	10	...	30	19	49	59
10. Diphtheria	...	...	...	...	...	...	...	...	...
11. Influenza	6	324	4	330	5	1,026	225	1,251	1,581
12. Miliary Fever	...	...	...	...	...	...	...	...	...
13. Mumps	1	8	...	9	...	32	6	38	47
14. Cholera	...	...	...	...	...	...	...	...	...
15. Epidemic Diarrhoea ...	...	...	...	...	...	...	...	...	...
16. Dysentery—									
(a) Amoebic	8	138	15	146	5	168	33	201	347
(b) Bacillary	...	47	3	47	1	211	37	248	295
(c) Undefined or due to other causes	...	105	6	105	11	28	3	31	136
17. Plague—									
(a) Bubonic	1	7	3	8	...	10	4	14	22
(b) Pneumonic	...	...	...	...	...	...	...	...	...
(c) Undefined	...	...	...	...	...	...	...	...	...
18. Yellow Fever	...	...	...	...	...	...	...	...	...
19. Spirochaetosis	...	...	...	...	...	...	...	...	...
icterо-haemorrhagica ...	...	...	...	...	...	...	...	...	...
20. Leprosy	1	82	4	83	7	125	48	173	256
21. Erysipelas	3	6	2	9	...	1	...	1	10
22. Acute Poliomyelitis	...	...	...	...	...	...	...	...	...
23. Encephalitis Lethargica ...	...	...	...	...	...	...			
24. Epidemic Cerebro-Spinal							...	...	...
Fever	...	7	4	7	...	1	...	1	8
25. Other Epidemic Diseases—									
(a) Rubeola (German Measles)	...	2	...	2	...	...	...	...	2
(b) Varicella (Chickenpox)...	1	229	...	230	12	59	21	80	310
(c) Kala Azar	...	...	...	...	...	...	...	...	...
(d) Phlebotomus Fever ...	...	...	...	...	...	...	...	...	...
(e) Epidemic Dropsy	...	...	...	...	...	...	...	...	...
(f) Dengue	...	58	...	58	4	7	6	13	71
(g) Yaws	163	5,819	28	5,982	205	28,646	23,549	52,195	58,177
(h) Trypanosomiasis	5	60	7	65	31	1	2	3	68
Carried forward ...	221	11,396	135	11,617	351	49,616	27,881	77,497	89,194

TABLES V AND VI—*Contd.*

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1925.—*Contd.*

DISEASES	IN-PATIENTS					OUT-PATIENTS			Total Cases In and Out Patients
	Remaining in Hospital at the end of 1924	Yearly Total		Total Cases Treated	Remaining in Hospital at the end of 1925	Males	Females	Total	
		Admissions	Deaths						
Brought forward ...	221	11,396	135	11,617	351	49,616	27,881	77,497	89,114
26. Glanders	...	...	...	...	...	...	...	...	...
27. Anthrax	...	2	...	2	...	15	10	25	27
28. Rabies	...	...	...	...	...	...	...	...	...
29. Tetanus	...	8	5	8	...	...	1	1	9
30. Mycosis	...	6	...	6	6	1	...	1	7
31. Tuberculosis Pulmonary and Laryngeal	6	143	56	149	10	127	49	176	325
32. Tuberculosis of Meninges or Central Nervous System	...	...	...	...	...	...	...	...	...
33. Tuberculosis of Intestines or Peritoneum	...	...	...	...	...	...	...	...	...
34. Tuberculosis of Vertebral Column	...	...	...	...	...	...	...	...	...
35. Tuberculosis of Bones and Joints	...	...	...	...	...	...	...	...	...
36. Tuberculosis of Other Organs	...	26	7	26	1	26	11	37	63
(*a*) Skin or Subcutaneous Tissue (Lupus)	...	...	..	...	...	...	...	...	...
(*b*) Bones	...	...	...	...	...	...	...	...	...
(*c*) Lymphatic System ...	...	...	...	...	...	...	...	...	...
(*d*) Genito-Urinary	...	...	...	...	...	...	...	...	...
(*e*) Other Organs	...	...	...	...	...	...	...	...	...
37. Tuberculosis disseminated									
(*a*) Acute	...	...	...	...	...	...	...	...	...
(*b*) Chronic	...	...	...	...	...	...	...	...	...
38. Syphilis—									
(*a*) Primary	21	454	1	475	28	568	201	769	1,244
(*b*) Secondary	66	698	1	764	36	3,226	1,971	5,197	5,961
(*c*) Tertiary	...	215	6	215	12	767	568	1,335	1,550
(*d*) Hereditary	10	55	5	65	1	108	145	253	318
(*e*) Period not indicated ...	...	...	...	...	...	...	...	...	...
39. Soft Chancre	3	54	...	57	6	69	4	73	130
40. A.—Gonorrhoea and its complications	38	638	...	676	15	2,040	168	2,208	2,884
B.—Gonorrhoeal Ophthalmia	...	...	...	...	...	...	...	...	...
C.—Gonorrhoeal Arthritis	...	...	...	...	...	...	...	...	...
D.—Granuloma Venereum	...	...	...	...	...	...	...	...	...
41. Septicaemia	...	10	7	10	...	...	...	...	10
42. Other Infectious Diseases									
Pyogenic infection	2	18	5	20	4	4	...	4	24
Pyrexia of Uncertain Origin	5	793	4	798	18	745	192	937	1,735
Seven-day Fever	...	1	...	1	...	...	...	...	1
Others	...	38	1	38	...	83	8	91	129
II. General Diseases Not Mentioned above.									
43. Cancer or other Malignant Tumours of the Buccal Cavity	...	...	...	...	...	...	...	...	...
44. Cancer or other Malignant Tumours of the Stomach or Liver	...	...	...	...	...	...	...	...	...
Carried forward ...	372	14,555	233	14,927	488	57,395	31,209	88,604	103,531

TABLES V AND VI—*Contd.*

Return of Diseases and Deaths (In-Patients) and of Diseases (Out-Patients) for the Year 1925.—*Contd.*

DISEASES	IN-PATIENTS					OUT-PATIENTS			Total Cases In and Out Patients
	Remaining in Hospital at the end of 1924	Yearly Total		Total Cases Treated	Remaining in Hospital at the end of 1925	Males	Females	Total	
		Admissions	Deaths						
Brought forward ...	372	14,555	233	14,927	488	57,395	31,209	88,604	103,531
45. Cancer or other Malignant Tumours of the Peritoneum, Intestines, Rectum	...	...	...	...	...	...	...	...	...
46. Cancer or other Malignant Tumours of the Female Genital Organs...	...	...	...	...	...	...	...	...	...
47. Cancer or other Malignant Tumours of the Breast ...	...	5	1	5	...	...	...	...	5
48. Cancer or other Malignant Tumours of the Skin ...	...	...	...	...	...	...	...	...	...
49. Cancer or other Malignant Tumours of Organs not specified	...	14	8	14	2	...	...	...	14
50. Tumours non- malignant	7	91	...	98	3	124	48	172	270
51. Acute Rheumatism	3	42	...	45	...	1,901	343	2,244	2,289
52. Chronic Rheumatism ...	2	126	1	128	3	1,194	331	1,525	1,653
53. Scurvy (including Barlow's Disease)	...	149	6	149	42	12	3	15	164
54. Pellagra	...	...	...	...	...	...	...	...	...
55. Beri-Beri	4	50	4	54	..	7	...	7	61
56. Rickets	...	...	...	...	...	14	3	17	17
57. Diabetes (not including Insipidus)	...	1	...	1	...	20	3	23	24
58. Anaemia (*a*) Pernicious	...	5	...	5	...	4	8	12	17
(*b*) Other Anaemias and Chlorosis	5	110	16	115	1	493	181	674	789
59. Diseases of the Pituitary Body	...	...	...	...	...	...	...	...	...
60. Diseases of the Thyroid Gland—									
(*a*) Exophthalmic Goitre ...	...	1	...	1	...	4	2	6	7
(*b*) Other diseases of the Thyroid Gland, Myxoedema	...	...	...	...	...	...	...	...	...
61. Diseases of the Parathyroid Glands	...	...	...	...	...	...	...	...	...
62. Diseases of the Thymus ...	...	...	...	...	...	...	...	...	...
63. Diseases of the Supra-Renal Glands	...	...	...	...	...	...	...	...	...
64. Diseases of the Spleen ...	...	...	...	...	...	...	...	...	...
65. Leukaemia—									
(*a*) Leukaemia	...	...	...	...	...	...	...	...	...
(*b*) Hodgkin's Disease ...	...	1	...	1	...	...	...	...	1
66. Alcoholism	...	6	1	6	...	1	...	1	7
67. Chronic poisoning by mineral substances (lead, mercury, etc.)	...	...	...	...	...	...	...	...	...
68. Chronic poisoning by organic substances (Morphia, Cocaine, etc.)	...	...	...	...	...	...	...	...	...
69. Other General Diseases									
Autointoxication	...	...	...	...	...	...	...	...	...
Purpura Haemorrhagica	...	1	...	1	...	...	2	2	3
Haemophilia	...	...	...	...	...	...	...	...	...
Diabetes Insipidus	...	...	...	...	...	...	...	...	...
Carried forward ...	393	15,157	270	15,550	539	61,169	32,133	93,302	108,852

TABLES V AND VI—*Contd.*

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1925.—*Contd.*

DISEASES	IN-PATIENTS					OUT-PATIENTS			Total Cases In and Out Patients
	Remaining in Hospital at the end of 1924	Yearly Total		Total Cases Treated	Remaining in Hospital at the end of 1925	Males	Females	Total	
		Admissions	Deaths						
Brought forward ...	393	15,157	270	15,550	539	61,169	32,138	93,302	108,852
Other Diseases	6	140	17	146	2	561	166	727	873
III. Affections of the Nervous System and Organs of the Senses.									
70. Encephalitis (not including Encephalitis Lethargica)	...	1	1	1	...	...	...	...	1
71. Meningitis or Cerebro-Spinal Meningitis)	...	3	3	3	...	...	...	...	3
72. Locomotor Ataxia	...	...	...	...	...	...	...	...	...
73. Other Affections of the Spinal Cord	...	1	...	1	1	1	1	2	3
74. Apoplexy —	...	3	2	3	...	3	1	4	7
(*a*) Haemorrhage...	...	...	...	...	...	...	...	...	...
(*b*) Embolism	...	...	...	...	...	...	...	...	...
(*c*) Thrombosis	...	...	...	...	...	...	...	...	...
75. Paralysis—	1	46	3	47	12	39	8	47	94
(*a*) Hemiplegia	...	...	...	...	...	...	...	...	...
(*b*) Other Paralyses	...	...	...	...	...	...	...	...	...
76. General Paralysis of the Insane	...	...	...	...	...	...	...	...	...
77. Other forms of Mental Alienation	5	59	4	64	3	19	11	30	94
78. Epilepsy	4	44	2	48	2	72	19	91	139
79. Eclampsia, Convulsions (nonpuerperal) 5 years or over	...	...	...	...	...	...	...	...	...
80. Infantile Convulsions ...	...	...	...	...	...	...	...	...	...
81. Chorea	...	5	...	5	...	...	...	...	5
82. A.—Hysteria	...	2	...	2	...	2	14	16	18
B.—Neuritis	5	87	1	92	4	2,255	370	2,625	2,717
C.—Neurasthenia	3	24	...	27	...	23	13	36	63
83. Cerebral Softening	...	...	...	...	...	...	...	...	...
84. Other affections of the Nervous System such as Paralysis Agitans	...	...	...	...	...	...	...	...	...
84a. Other affections of the Nervous System	6	123	2	129	2	4,199	748	4,947	5,076
85. Affections of the Organs of Vision—									
(*a*) Diseases of the Eye—Cataract	...	31	...	31	4	75	36	111	142
(*b*) Conjunctivitis	4	379	...	383	10	5,768	2,302	8,070	8,453
(*c*) Trachoma	...	...	...	...	...	...	...	...	...
(*d*) Tumours of the Eye ...	...	...	...	...	...	...	...	...	...
(*e*) Other affections of the Eye	6	156	1	162	12	753	313	1,066	1,228
86. Affections of the Ear or Mastoid Sinus	3	55	...	58	...	2,204	825	3,029	3,087
IV. Affections of the Circulatory System.									
87. Pericarditis	...	...	...	...	...	4	2	6	6
88. Acute Pericarditis or Myocarditis	...	3	2	3	...	2	...	2	5
89. Angina Pectoris	...	...	...	...	...	...	...	...	...
Carried forward ...	436	16,319	308	16,755	591	77,149	36,962	114,111	130,866

TABLES V AND VI—*Contd.*

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1925.—*Contd.*

DISEASES	IN-PATIENTS					OUT-PATIENTS			Total Cases In and Out Patients
	Remaining in H spital at the end of 1924	Yearly Total Admissions	Yearly Total Deaths	Total Cases Treated	Remaining in Hospital at the end of 1925	Males	Females	Total	
Brought forward ...	436	16,319	308	16,755	591	77,149	36,962	114,111	130,866
90. Other Diseases of the Heart—(a) Valvular									
Mitral	...	29	2	29	2	49	28	77	106
Aortic	...	3	1	3	...	5	...	5	8
Tricuspid	...	...	...	...	...	...	...	...	...
Pulmonary	...	1	1	1	...	...	...	...	1
(*b*) Myocarditis	...	...	...	...	...	...	...	...	...
91. Diseases of the Arteries—									
(*a*) Aneurism	...	3	...	3	...	2	...	2	5
(*b*) Arterio-Sclerosis	...	1	...	1	...	...	...	...	1
(*c*) Other diseases	...	...	...	...	...	...	...	...	...
92. Embolism or Thrombosis (non-cerebral)	...	...	...	...	...	...	...	...	...
93. Diseases of the Veins—						...			
Haemorrhoids	1	26	...	27	1	91	18	109	136
Varicose Veins...	...	...	...	...	...	...	...	...	...
Phlebitis	...	...	...	...	...	...	...	...	...
94. Diseases of the Lymphatic System—									
Lymphangitis	1	31	1	32	...	83	27	110	142
Lymphadenitis Bubo (non-specific)	3	121	3	124	1	489	49	538	662
95. Haemorrhage of undetermined cause... ...	...	...	...	...	...	...	...	...	...
96. Other affections of the Circulatory System... ...	1	33	7	34	2	75	18	93	127
V. Affections of the Respiratory System.									
97. Diseases of the Nasal Passages—									
Adenoids	...	...	...	...	...	...	...	...	...
Polypus	...	...	...	...	...	...	...	...	...
Rhinitis	...	...	...	...	...	...	...	...	...
Coryza	...	14	...	14	...	159	20	179	193
98. Affections of the Larynx—									
Laryngitis...	...	14	1	14	...	100	28	128	142
99. Bronchitis—									
Acute...	8	794	4	802	8	18,032	4,994	23,026	23,828
Chronic	1	65	1	66	1	2,862	921	3,783	3,849
100. Broncho-Pneumonia ...	1	120	29	121	7	93	31	124	245
101. Pneumonia—									
(*a*) Lobar	3	364	85	367	8	75	17	92	459
(*b*) Unclassified	...	...	...	...	...	...	...	...	...
102. Pleurisy and Empyema ...	4	88	2	92	2	179	27	206	298
103. Congestion of the Lungs	...	...	...	...	...	...	...	...	...
104. Gangrene of the Lungs...	...	...	...	...	...	...	...	...	...
105. Asthma	...	54	1	54	1	278	119	397	451
106. Pulmonary Emphysema	1	3	...	4	1	3	2	5	9
107. Other affections of the Lung—	...	...	...	...	...	...	...	...	...
Pulmonary Spirochaetosis	...	...	...	...	...	...	...	...	...
Abscess of Lungs	...	2	2	2	...	...	...	...	2
Carried forward ...	460	18,085	448	18,545	625	99,724	43,261	142,985	161,530

TABLES V AND VI—*Contd.*

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1925.—*Contd.*

DISEASES	IN-PATIENTS					OUT-PATIENTS			Total Cases In and Out Patients
	Remaining in Hospital at the end of 1924	Yearly Total Admissions	Yearly Total Deaths	Total Cases Treated	Remaining in Hospital at the end of 1925	Males	Females	Total	
Brought forward ...	460	18,085	448	18,545	625	99,724	43,261	142,985	161,530
VI. Diseases of the Digestive System.									
108. A.—Diseases of Teeth or Gums—Caries, Pyorrhoea, etc ...	...	16	...	16	...	3,753	1,587	5,340	5,356
B.—Other affections of the Mouth—Stomatitis, Glossitis, etc.	...	28	...	28	1	458	142	600	628
109. Affections of the Pharynx Tonsils—									
Tonsillitis...	1	103	...	104	1	537	135	672	776
Pharyngitis	...	34	...	34	...	1,562	264	1,826	1,860
110. Affections of the Œsophagus	...	...	...	...	...	...	...	...	...
111. A.—Ulcer of the Stomach	...	1	...	1	1	...	...	...	1
B.—Ulcer of Duodenum	...	...	...	...	...	...	...	...	...
112. Other affections of the Stomach—Gastritis ...	...	59	...	59	2	225	109	334	393
Dyspepsia, etc.	3	26	1	29	...	943	361	1,304	1,333
113. Diarrhoea and Enteritis—Under two years	...	...	...	...	...	...	...	...	...
114. Diarrhoea and Enteritis—Two years and over... ...	8	499	29	507	13	3,812	850	4,662	5,169
Colitis	...	43	...	43	...	152	36	188	231
Ulceration...	...	1	1	1	...	...	...	...	1
114a. Sprue	...	1	...	1	...	...	...	...	1
115. Ankylostomiasis	34	754	124	788	52	2,206	969	3,175	3,963
116. Diseases due to Intestinal Parasites—									
(*a*) Cestoda (Taènia)	2	144	4	146	1	2,113	817	2,930	3,076
(*b*) Trematoda (Flukes) ...	...	7	...	7	...	16	2	18	25
(*c*) Nematoda (other than Ankylostoma)	...	...	...	...	...	...	...	...	...
Ascaris	...	36	1	36	...	2,682	1,330	4,012	4,048
Tricocephalus dispar ...	...	...	...	...	...	6	...	6	6
Trichina	...	...	...	...	...	...	...	...	...
Dracunculus	...	6	...	6	...	1	...	1	7
Strongylus	...	5	...	5	1	7	3	10	15
Oxyuris	...	...	...	...	...	29	14	43	43
(*d*) Coccidia	...	...	...	...	...	...	...	...	...
(*e*) Other parasites	...	...	...	...	...	2	...	2	2
(*f*) Unclassified	...	...	...	...	...	...	...	...	...
117. Appendicitis	...	10	3	10	1	6	2	8	18
118. Hernia	12	115	4	127	8	96	9	105	232
119. A.—Affections of the Anus, Fistula, etc.	...	...	...	...	...	...	...	...	...
B.—Other affections of the Intestines —Enteroptosis	...	...	...	...	...	...	...	...	...
Constipation	2	248	1	250	6	9,813	2,781	12,594	12,844
120. Acute Yellow Atrophy of the Liver	...	...	...	...	...	...	...	...	...
121. Hydatid of the Liver ...	...	...	...	...	...	...	...	...	...
Carried forward ...	522	20,221	616	20,743	712	128,143	52,672	180,815	201,558

TABLES V AND VI—*Contd.*

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1925.—*Contd.*

DISEASES	IN-PATIENTS					OUT-PATIENTS			Total Cases In and Out Patients
	Remaining in Hospital at the end of 1924	Yearly Total		Total Cases Treated	Remaining in Hospital at the end of 1925	Males	Females	Total	
		Admissions	Deaths						
Brought forward ...	522	20,221	616	20,743	712	128,143	52,672	180,815	201,558
122. Cirrhosis of the Liver—									
(*a*) Alcoholic	...	...	...	...	...	...	...	...	...
(*b*) Other Forms	...	12	5	12	...	7	5	12	24
123. Biliary Calculus	...	...	...	...	...	...	...	...	...
124. Other affections of the Liver									
Abscess	...	15	6	15	...	8	6	14	29
Hepatitis	...	32	...	32	2	101	55	156	188
Cholecystitis	...	...	...	...	...	...	...	...	...
Jaundice	1	25	2	26	1	56	9	65	91
125. Diseases of the Pancreas	...	...	...	...	...	...	...	...	...
126. Peritonitis (of unknown cause)	...	4	3	4	...	2	2	4	8
127. Other affections of the Digestive System	3	309	6	312	5	3,267	974	42,41	45,53
VII. Diseases of the Genito-Urinary System (Non-Venereal.)									
128. Acute Nephritis	...	16	3	16	4	13	5	18	34
129. Chronic ,, ...	1	19	3	20	...	44	8	52	72
130. A.—Chyluria	...	...	...	...	...	...	...	...	...
B.—Schistosomiasis ...	1	100	1	101	2	485	124	609	710
131. Other affections of the Kidneys—									
Pyelitis, etc.	...	4	...	4	...	1	...	1	5
132. Urinary Calculus	...	7	...	7	...	8	...	8	15
133. Diseases of the Bladder—									
Cystitis	...	24	...	24	...	83	11	94	118
134. Diseases of the Urethra—									
(*a*) Stricture...	4	36	2	40	2	100	...	100	140
(*b*) Other	...	19	...	19	...	97	...	97	116
135. Diseases of the Prostate—									
Hypertrophy	...	...	...	...	...	...	...	...	...
Prostatitis...	...	1	...	1	...	7	...	7	8
136. Diseases (Non-Venereal) of the Genital Organs of Man—									
Epididymitis	2	27	...	29	...	39	...	39	68
Orchitis	12	114	1	126	5	411	...	411	537
Hydrocele	15	183	2	198	13	172	...	172	370
Ulcer of Penis	...	...	...	...	...	...	...	...	...
Other Diseases...	17	97	4	114	15	155	7	162	276
137. Cysts or other Malignant Tumours of the Ovaries ...	1	1	...	2	...	...	1	1	3
138. Salpingitis—Abscess of the Pelvis	...	...	...	...	...	...	...	...	...
139. Uterine Tumours (non-malignant)	...	...	...	...	...	...	...	...	...
140. Uterine Haemorrhage (non-puerperal)	...	4	...	4	...	...	32	32	36
141. A.—Metritis	...	7	...	7	...	...	17	17	24
B.—Other affections of the Female Genital Organs—									
Displacement of Uterus...	...	2	...	2	...	...	13	13	15
Amenorrhoea	...	...	...	...	...	...	26	26	26
Carried forward ...	579	21,279	654	21,858	761	133,199	53,967	187,166	209,024

TABLES V AND VI—*Contd.*

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1925.—*Contd.*

DISEASES	IN-PATIENTS					OUT-PATIENTS			Total Cases In and Out Patients
	Remaining in Hospital at the end of 1924	Yearly Total		Total Cases Treated	Remaining in Hospital at the end of 1925	Males	Females	Total	
		Admissions	Deaths						
Brought forward ...	579	21,279	654	21,858	761	133,199	53,967	187,166	209,024
Dysmenorrhoea	...	14	...	14	...	...	89	89	103
Leucorrhoea	...	3	...	3	...	...	35	35	38
Ovaritis	...	6	...	6	1	...	17	17	23
Vaginiti	...	4	...	4	...	...	3	3	7
Other conditions	5	50	4	55	...	...	85	85	140
142. Diseases of the Breast (non-puerperal)—									
Mastitis	...	...	...	...	...	...	...	...	...
Abscess of Breast	...	...	...	...	...	...	...	...	...
VIII. Puerperal State.									
143. A.—Normal Labour ...	...	608	1	68	3	...	10	10	78
B.—Accidents of Pregnancy—									
(*a*) Abortion	1	28	...	29	...	...	29	29	58
(*b*) Ectopic Gestation... ...	...	...	...	...	...	...	...	...	...
(*c*) Other accidents of Pregnancy	...	...	...	...	...	...	...	...	...
144. Puerperal Haemorrhage	...	...	...	...	...	...	15	15	15
145. Other accidents of Parturition	1	14	1	15	...	...	6	6	21
146. Puerperal Septicaemia ...	...	6	3	6	...	...	12	12	18
147. Phlegmasia Dolens... ...	...	...	...	...	...	...	...	...	...
148. Puerperal Eclampsia ...	...	...	...	...	...	...	...	...	...
149. Sequelae of Labour... ...	...	...	...	...	...	...	...	...	...
150. Puerperal affections of the Breast	...	14	...	14	1	...	97	97	111
IX. Affections of the Skin and Cellular Tissues.									
151. Gangrene...	...	2	1	2	...	...	...	...	2
152. Boil	1	88	...	89	5	1,584	208	1,792	1.881
Carbuncle	1	11	...	12	...	10	2	12	24
153. Abscess—	13	376	5	389	19	1,179	247	1,426	1,815
Whitlow	...	4	...	4	...	38	7	45	49
Cellulitis	3	180	2	183	10	826	136	962	1,145
Ulcers	192	2,058	18	2,250	151	16,536	4,031	20,567	22,817
154. A.—Tinea	...	2	...	2	...	203	48	251	253
B.—Scabies	7	155	...	162	8	5,195	1,242	6,437	6,599
155. Other Diseases of the Skin—									
Erythema	...	...	...	...	...	...	...	...	...
Urticaria	5	11	...	16	...	83	35	118	134
Eczema	1	43	1	44	...	602	215	817	861
Herpes	...	4	...	4	1	75	11	86	90
Psoriasis	...	8	...	8	...	32	11	43	51
Elephantiasis	24	129	5	153	11	143	35	178	331
Myiasis	...	3	...	3	...	24	2	26	29
Chigoes	1	64	1	65	2	899	194	1,093	1,158
Cutaneous Leishmaniasis	...	...	...	...	...	...	...	...	...
Other conditions	10	213	4	223	2	1,200	218	1,418	1,641
Carried forward ...	844	24,837	700	25,681	975	161,828	61,007	222,835	248,516

TABLES V AND VI—*Contd.*

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1925.—*Contd.*

DISEASES	IN-PATIENTS					OUT-PATIENTS			Total Cases In and Out Patients
	Remaining in Hospital at the end of 1924	Yearly Total		Total Cases Treated	Remaining in Hospital at the end of 1925	Males	Females	Total	
		Admissions	Deaths						
Brought forward ...	844	24,837	700	25,681	975	161,828	61,007	222,835	248,516
X. Diseases of Bones and Organs of Locomotion (Other than Tuberculous)									
156. Diseases of Bones— Osteitis	2	59	...	61	...	50	48	98	159
157. Diseases of Joints— Arthritis	...	114	...	114	8	832	407	1,239	1,353
Synovitis	...	11	...	11	...	37	6	43	54
158. Other Diseases of Bones or Organs of Locomotion ...	12	227	5	239	3	1,287	234	1,521	1,760
XI. Malformations.									
159. Malformations...	...	5	...	5	1	8	...	8	13
Hydrocephalus...	...	...	...	...	...	1	...	1	1
Hypospadias	...	...	...	...	...	...	...	...	...
Spina Bifida, etc.	...	...	...	...	...	...	...	...	...
XII. Diseases of Infancy.									
160. Congenital Debility ...	...	...	...	...	...	...	...	...	...
161. Premature Birth	...	4	4	4	...	...	1	1	5
162. Other affections of Infancy	...	...	...	...	...	...	...	...	...
163. Infant Neglect (infants of three of months or over	...	...	...	...	...	...	...	...	...
XIII. Affections of Old Age.									
164. Senility— Senile Dementia	...	...	...	...	...	...	...	...	...
XIV. Affections produced by External Causes									
165. Suicide by Poisoning ...	...	...	...	...	...	...	...	...	...
166. Corrosive Poisoning (intentional)	...	...	...	...	...	...	...	...	...
167. Suicide by Gas Poisoning	...	...	...	...	...	...	...	...	...
168. Suicide by Hanging or Strangulation	...	1	...	1	...	...	...	...	1
169. Suicide by Drowning ...	...	...	...	...	...	...	...	...	...
170. Suicide by Firearms ...	...	...	...	...	...	...	...	...	...
171. Suicide by cutting or stabbing instruments	...	...	...	...	...	...	...	...	...
172. Suicide by jumping from a height	...	...	...	...	...	...	...	...	...
173. Suicide by crushing ...	...	...	...	...	...	...	...	...	...
174. Other Suicides...	...	...	...	...	...	...	...	...	...
175. Food Poisoning— Botulism	...	6	1	6	...	1	...	1	7
176. Attacks of Poisonous Animals— Snake Bite	1	13	...	14	1	7	2	9	23
Insect Bite	...	12	...	12	...	57	6	63	75
177. Other Accidental Poisonings	...	4	1	4	...	3	...	3	7
178. Burns (by Fire)	...	...	...	...	...	...	...	...	...
179. Burns (other than by Fire)	...	41	5	41	2	137	19	156	197
Carried forward ...	859	25,334	716	26,193	990	164,248	61,730	225,978	252,171

TABLES V AND VI—*Contd.*

Return of Diseases and Deaths (In-Patients) and of Diseases (Out-Patients) for the Year 1925.—*Contd.*

DISEASES	IN-PATIENTS					OUT-PATIENTS			Total Cases In and Out Patients
	Remaining in Hospital at the end of 1924	Yearly Total		Total Cases Treated	Remaining in Hospital at the end of 1925	Males	Females	Total	
		Admissions	Deaths						
Brought forward ...	859	25,334	716	26,193	990	164,248	61,730	225,978	252,171
180. Suffocation (accidental)...	...	...	...	...	...	...	...	...	...
181. Poisoning by Gas (accidental)	...	...	...	...	...	...	...	...	...
182. Drowning (accidental) ...	...	...	...	...	...	...	...	...	...
183. Wounds (by Firearms, war excepted)	...	5	2	5	...	1	...	1	6
184. Wounds by cutting or stabbing instruments ...	...	...	...	...	...	30	...	30	30
185. Wounds by Fall	...	...	...	...	...	...	...	...	...
186. Wounds (in Mines or Quarries)	...	...	...	...	...	...	...	...	...
187. Wounds (by Machinery)...	...	...	...	...	...	...	...	...	...
188. Wounds (crushing e.g. railway accidents, etc.) ...	...	...	...	...	...	...	...	...	...
189. Injuries inflicted by Animal Bites, Kicks, etc.	...	1	1	1	...	2	2	4	5
190. Wounds inflicted on Active Service	...	...	...	...	...	...	...	...	...
191. Execution of civilians by belligerents	...	...	...	...	...	...	...	...	...
192. A.—Over Fatigue	...	...	...	...	...	...	...	...	...
B.—Hunger or Thirst ...	...	3	1	3	...	2	...	2	5
193. Exposure to Cold, Frost Bite, etc.	...	...	...	...	...	...	...	...	...
194. Exposure to Heat									
Heat Stroke	...	3	...	3	...	1	...	1	4
Sunstroke	...	...	...	...	...	...	...	...	...
195. Lightning Stroke	...	...	...	...	...	..	...	...	...
196. Electric Stroke	...	...	...	...	...	...	...	...	...
197. Murder by Fireams ...	...	...	...	...	...	...	...	...	...
198. Murder by cutting or stabbing Instruments ...	...	...	...	...	...	...	...	...	...
199. Murder by Other Means	...	...	...	...	...	...	...	...	...
200. Infanticide (Murder of an Infant under one year) ...	...	...	...	...	...	...	...	...	...
201. A.—Dislocation	...	...	...	...	...	8	1	9	9
B.—Sprain	...	3	...	3	...	68	9	77	80
C.—Fracture	3	60	6	63	5	15	5	20	83
202. Other External Injuries—									
Wounds, contused	...	4	...	4	...	109	13	122	126
Wounds, accident, septic, etc.	9	302	3	311	18	1,142	161	1,303	1,614
Contusions, Bruises Abrasions, etc.	...	1	1	1	...	43	4	47	48
Circumcisions	...	2	...	2	...	...	...	...	2
General Injuries	2	13	2	15	...	88	10	98	113
Local Injuries	45	1,214	37	1,259	71	14,993	1,669	16,662	17,921
203. Deaths by Violence or Unknown Cause	...	...	...	...	...	...	...	...	...
XV. Ill-Defined Diseases.									
204. Sudden Death (cause unknown)	...	...	...	...	...	...	...	...	...
Carried forward ...	918	26,945	769	27,863	1,084	180,750	63,604	244,354	272,217

TABLES V AND VI—*Contd.*

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) AND OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1925.—*Contd.*

DISEASES	IN-PATIENTS					OUT-PATIENTS			Total Cases In and Out Patients
	Remaining in Hospital at the end of 1924	Yearly Total		Total Cases Treated	Remaining in Hospital at the end of 1925	Males	Females	Total	
		Admissions	Deaths						
Brought forward ...	918	21,945	769	27,863	1,084	180,750	63,604	244,354	272,217
205. Diseases not already specified or ill-defined—									
Ascites	1	48	14	49	8	41	11	52	101
Oedema	...	...	...	...	...	...	...	...	...
Asthenia	...	...	...	...	...	...	...	...	...
Shock	...	...	...	...	...	...	...	...	...
Hyperpyrexia	...	...	...	...	...	...	...	...	...
B.—Malingering	...	...	...	...	...	...	...	...	...
XVI. Diseases, the Total of which have not caused ten deaths.	1	1	...	2	...	9	1	10	12
206. Filariasis...	1	16	...	17	...	20	6	26	43
TOTAL ...	921	27,010	783	27,931	1,092	180,820	63,622	244,442	272,373

INDEX.

PAGE.

A.

Acknowledgments ... 125
Administrative—Staff: European, Asiatic and African ... 1, 126
Amoebic Dysentery ... 102
Ankylostomiasis ... 30, 56, 60, 121
Anthrax ... 9, 24, 57
Appointments—European, Asiatic and Acting ... 1

B.

Baby Show ... 112
Bacteriological examinations ... 119
Bayer "205" ... 23
Beri-Beri ... 5, 57
Bilharzia, *see* Schistosomiasis
Blackwater Fever ... 10, 18-20, 22
Blood examinations ... 118
Bones and Organs of Locomotion, Diseases of ... 140

C.

Calcium Chloride in the treatment of Gonorrhoea ... 13, 98, 103, 109
Cancer, *see* Malignant Diseases
Central Town Planning and Building Committee ... 34
Cerebro-Spinal Meningitis ... 9, 28
Chicken Pox ... [illegible]
Child Welfare, *see* Maternity and Child Welfare
Cholera ... 25
Circulatory System—Affections of ... 7, 135
Communicable Diseases ... 9-11

D.

Dar es Salaam—Report by Sanitation Officer ... 41
,, Statistics ... 42, 43
,, Mosquito Larvae ... 44
,, Table of Malaria Notifications ... 46
,, Mosquitoes identified ... 46
,, Rats destroyed ... 47
,, Tuberculosis ... 41, 48
,, Leprosy ... 48
,, Vaccination ... 49
,, Port Health ... 50
,, Infectious Diseases ... 49, 50
,, Sanitation ... 50, 51
,, Food ... 51, 52
,, School Medical Work ... 52
,, Town Planning and Township Authority Work ... 53
,, Licensed Trades ... 53
,, Maternity and Child Welfare ... 41
Deaths ... 5, 42, 43, 54
Deficiency Diseases ... 5-7
Dengue ... 9, 24
Dental Surgeon's Report ... 113-114
Diet Scales ... 6, 7
Digestive System, Diseases of ... 8, 137-138
Diphtheria ... 10
Drainage ... 21, 31, 32, 50, 62
Dysentery ... 10, 25, 102

PAGE.

E.

Encephalitis Lethargica ... 10
Enteric Fever ... 25, 63
,, ,, simulated by amoebic dysentery ... 102
Entomological examinations ... 124
Epidemic, Endemic and Infectious Diseases ... 24, 131
External causes, affections produced by ... 140
Eye Diseases—Cataract ... 7, 135

F.

Fæces, examination of ... 118
Filariasis ... 24, 121, 142
Financial—Revenue and Expenditure ... 4, 130-131
Food in Relation to Health and Disease ... 6, 34

G.

General Diseases ... 4-9, 133-135
,, ,, ,Total Cases and Deaths, Table ... 5
Genito-Urinary System—Diseases of ... 138
Glanders ... 10
Gonorrhoea, treatment of, with Mercurochrome and Calcium Chloride ... 13, 103, 109

H.

Health Propaganda ... 36
Helminthic Diseases, *see* also Ankylostomiasis, Schistosomiasis ... 30, 118
Hospitals and Dispensaries ... 76
Housing and Town Planning ... 34
Hygiene and Sanitation ... 21-40

I.

Ill-defined Diseases ... 141
Infancy, Diseases of ... 140
Infantile Mortality ... 38
Infant Welfare, *see* Maternity
Infectious Diseases ... 28, 29
Influenza ... 26, 29, 57
Invalidings ... 3, 14-17

K.

King's African Rifles—Report on health of ... 77, 78

L.

Laboratory, Report of Director of ... 118-125
Labour conditions ... 33
Labourers—diet scales ... 5-7
Leprosy ... 48, 111
Lindi—Report by Sanitation Officer ... 72
Liver Abscess ... 108
,, , Cancer of ... 103
Local injuries ... 8
Lunatic Asylum at Lutindi—Report of Superintendent of ... 94-96

M.

Malaria and Blackwater Fever ... 10, 18-22, 98, 120
Malaria, cerebral ... 107
Malignant Diseases ... 99, 100, 103, 133-134
Malformations ... 140
Maternity and Child Welfare ... 68, 74, 75, 112
Markets ... 35
Medical Staff—Disposition of ... 126-130
,, Leave of absence ... 129-130
,, Transfers ... 129

PAGE.

Medico-legal examinations ... 119
Mental diseases, *see* Lunatic Asylum
Mercurochrome ... 98, 102, 109
Meteorological Returns, *see* also Rainfall ... 97
,, ,, Dar es Salaam ... 120
,, ,, Tanga ... 58, 59
,, ,, Tabora ... 69-70, 71
Mosquito-proofing ... 39
Mumps ... 10

N.

Nervous System and Organs of Sense ... 7, 135

O.

Offensive Trades ... 32, 53
Old age—affections of ... 140
Operations—Table of Surgical ... 8-9
Ordinances relating to Public Health ... 3, 4

P.

Pathological examinations ... 119
Plague ... 10, 24, 29, 119
Poisonous plants ... 119
Police—Report on health of ... 93
Port Health Work and Administration ... 50, 58, 74
Prisons—Report on ... 79-92
Public Health—General Remarks ... 4-20
Puerperal State, Affections of the ... 139
Purpura Haemorrhagica, A case of ... 101

Q.

Quinine Prophylaxis ... 77
,, Intravenous Injection of Quinine Sulphate suspended in Olive Oil ... 97, 123

R.

Rainfall, *see* also Meteorological ... 44, 97
Rat destruction ... 47, 115-117
Recommendations ... 21, 40
Relapsing Fever ... 10, 23, 47, 62, 102
Respiratory System—Affections of ... 7, 136
Retirements and resignations ... 3
Returns of Diseases and Deaths In and Out-Patients ... 132-142

S.

Sanitary personnel, training of ... 36-38
Sanitation—general measures ... 31, 32
Schistosomiasis ... 30, 57, 63, 66, 121
School Medical Work ... 21, 33, 52, 59, 66
Scientific—Notes on the use of Mercurochrome and Calcium Chloride ... 98
,, Notes on Malaria and Blackwater by Dr. Suffern ... 98
,, Notes on Malignant Diseases by Dr. Ievers ... 99
,, Report on a case of Fracture of the Skull by Dr. Tichborne ... 99
,, Cancer Cases by Dr. Parry ... 100
,, Volvulus of Small Intestine by Dr. Parry ... 101
,, Haemorrhagic Purpura due to Tick Bites by Dr. Parry ... 101
,, Report of two Cases of Relapsing Fever successfully treated by Mercurochrome by Dr. Parry ... 102
,, A case of Amœbic Dysentery simulating Enteric Fever by Dr. Parry 102
,, Notes on two cases of Malignant Disease and treatment of Gonorrhoeal Sequelœ with Intravenous Injections of Calcium Chloride by Dr. Blackwood ... 103
,, Primary Cancer of the Liver in an African Native by Dr. Williams ... 103
,, Report on a case of Sprue, treated with Parathyroid Extract and Calcium Lactate by Dr. Shelton ... 104

PAGE.

Scientific—A case of Tubal Gestation Associated with a Teratomatous Cyst of the Ovary ... 106
,, A case of Cerebral Malaria caused by a Plasmodium thought to be identical with *P. Tenue* by Dr. Shelton ... 107
,, A case of Liver Abscess treated by Aspiration and Emetine Injections by Dr. Shelton ... 108
,, Report on the treatment of Seven Cases of Gonorrhoea by Intravenous Injections of Mercurochrome and Calcium Chloride by Dr. Connell 109
,, Report on a case of Syphilitic Myelitis by Dr. Lockhart ... 110
,, An Account of the Leper Camp at Ndanda with Notes on Treatment by Dr. Mackay ... 111
,, Baby Show at Kahama, an extract from a report by Senior Sub-Assistant Surgeon Kelkar ... 112
,, Dental Report by Mr. Fisher ... 113
,, Observations on the Trapping, Poisoning and Gassing of Rats by Sanitary Superintendent J. S. Humphrey ... 115
,, Annual Report of the Bacteriological Laboratory at Dar es Salaam by Dr. J. F. Corson ... 118-125
Skin and Cellular Tissue—Diseases of ... 8, 139
Slaughter Houses ... 35
Sleeping Sickness, *see* Trypanosomiasis
Small-pox ... 24, 28, 56, 62
Spirillum Fever, *see* Relapsing Fever
Sprue, A case of ... 104
Staff, *see* Medical Staff
Syphilis ... 12-13
,, Treatment of, with a compound of Bismuth Sodium Tartrate and Soamin 98
Syphilitic Myelitis ... 110

T.

Tabora—Report of Sanitation Officer ... 61
,, Vital Statistics ... 61, 70
,, Anti-mosquito work ... 61
,, Epidemic and Endemic Diseases ... 62-63
,, Helminthiasis ... 63-64
,, General Measures ... 64-66, 67-69
,, District Sanitation ... 69
,, Drainage and Filling ... 62, 67
,, Morbidity rates of Malaria and Blackwater Fever, Officials ... 20
,, Sick, Invaliding and Death Rates, (Officials) ... 16, 17
,, School Children, Health of ... 66, 67
,, Railway Sanitation ... 64
,, Maternity and Child Welfare Clinic ... 68
,, Meteorological Notes ... 69, 71
,, Township Authority ... 64, 65
,, Vaccinations ... 71
,, Water Supply ... 67
Tanga—Report of Sanitation Officer ... 54
,, Vital Statistics ... 54-55, 59
,, Mosquito Index ... 55
,, Helminthiasis ... 56-57
,, Anthrax ... 57
,, Tuberculosis ... 57
,, Meteorology ... 58, 59
,, Government School, health of scholars ... 59, 60
Tetanus ... 57
Tick Fever, *see* Relapsing Fever
Trypanosomiasis ... 10, 22, 23
Tryparsamide ... 23
Tubal Gestation, A case of ... 106
Tuberculosis ... 11, 26-27, 41, 48, 57
Typhoid Fever ... 25, 63

U.

Ulcers ... 8
Urinary System—Diseases of ... 138

PAGE.

V.

Vaccination Returns ... 25, 49, 56, 71
Vaccine Lymph ... 21, 40, 120
Venereal Diseases ... 11
Vital Statistics ... 13-17, 61, 70
,, ,, Sick, Invaliding and Death Rates ... 16, 17
,, ,, Morbidity Rates for Malaria and Blackwater Fever ... 18-20
Vitamin Deficiency, *see* Deficiency Diseases, Diet Scales
Volvulus, A case of ... 101

W.

Water Supplies, Extension of ... 21, 32
,, Supply, Dar es Salaam ... 32, 51
,, ,, Tabora ... 67
,, ,, Tanga ... 54

Y.

Yaws ... 11, 12
,, Distribution of ... 11
,, Treatment with Bismuth Sodium Tartrate ... 11
Yellow Fever ... 23

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